THE GENESEE FARMER.

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HINTS ON SPRING WORK.

DRAWING OUT MANURE.—The first favorable opportunity should be seized to draw out the manure from the barn yard. To what crops, at what time, in what condition, and in what manner, manure should be applied, must be determined by circumstances. The loss from spreading manure on the soil and leaving it exposed, is far less at any season of the year than many able writers have supposed; and early in the spring, when we may reasonably expect considerable rain, the loss, if any, is very trifling.

CLOVER FOR SOILING PURPOSES.—The high price of labor renders the general introduction of the system of soiling adopted with such advantage in some parts of England and the Continent, of questionable economy with us. Nevertheless, every farmer will find it to his advantage to have at least enough green food to feed his horses and cattle at noon, when at hard spring and summer work. For this purpose, all things considered, we know of nothing better than red clover. If you have any young clover near the barn, draw on to it and spread, as soon as possible, a few loads of well rotted manure. This will give the clover an early start, and force it rapidly forward. A bushel of plaster to the acre, also, will generally be beneficial. This will furnish excellent green food as early as any other crop; it does not impoverish the land, and the clover can afterwards be allowed to go to seed with advantage.

MANURING CLOVER SOD FOR POTATOES, CORN, &C.—It is the opinion of many of our best practical farmers, that there is no better preparation for potatoes and corn than a one or two year old clover sod, plowed immediately before planting, turning under a good coat of young clover. For corn, this method is found beneficial, not only in furnishing organic matter for the plants, but also in providing a more palatable food for the wire worms, which feast on the young clover and leave the corn alone. It may be questioned, however, whether providing an abundance of food for the worms will not tend to their increased multiplication. We have had no experience on this point. If it is intended to manure the corn, there can be no doubt that it may be applied with considerable advantage on the clover sod early in the spring. It will greatly increase the growth of the clover early in the season, and there will be much more to turn under, or to eat off by cattle and sheep if desired. If it is intended to use plaster on the corn, we believe it would do quite as much good sown broadcast on the clover at this time, as if applied in the usual way on the hills soon after the young corn is out of the ground.

SOWING CLOVER SEED.—In England, clover is usually sown with barley. In the wheat growing sections of this country, nearly all our clover is sown upon winter wheat in the spring. It is frequently sown upon the snow, towards the latter part of March, and is seldom injured by the frosts which sometimes occur after it is sown. We prefer, however, to wait till the ground is sufficiently dry to roll or harrow. Make it a rule to sow all your wheat land with clover. You cannot grow too much of this fertilizing crop. All the barley land should also be sown with clover, unless you intend to sow wheat on it as soon as the barley is off. If you plant corn on barley stubble, we think it will pay to sow clover on the barley, for the purpose of turning under as a manure. The quantity of clover seed sown per acre varies from eight to fourteen pounds. Ten pounds is usually quite enough, though we are decidedly in favor of plenty of seed—grow your own, and scatter it with a liberal hand.

ROLLING, HARROWING, AND SOWING WHEAT.—On soils where the wheat plant is apt to be thrown partially out of the ground by the frosts of winter, there can be no doubt that rolling it in the spring is decidedly advantageous. We must say, however, that we have seen more marked beneficial results from harrowing wheat in the spring than from rolling it. The practice of hoeing wheat in the spring is quite common in England, and some farmers have adopted the practice with advantage in this country. Labor is higher here than in England, but we have not the slightest hesitation in saying that few things would pay better than hoeing wheat in the spring. Of course it would be necessary to sow the wheat in drills, from twelve to fourteen inches apart. In this connection we may quote a passage from MORTON'S *Cyclopedia of Agriculture*—the most recent and reliable work on British agriculture extant: "On all soft soils which throw up a profuse growth of weeds in winter and spring, the broadcast system of sowing wheat is always precarious, and drilling should always be preferred. There is no advantage, however, in drilling wheat on any kind of land, unless the system is followed up by either horse-hoeing or hand-hoeing in spring, as weeds grow fully faster in the vacant spaces between the rows than where the seed has been sown broadcast, and the plants are standing somewhat evenly on the surface." This opinion is worthy of consideration. If we cannot afford to hoe our wheat, we might at least harrow it; and we be-

lieve drilling, in conjunction with harrowing, will be much better than sowing broadcast. GARRETT'S Horse Hoe (a cut of which we gave in our last volume) is used to a considerable extent in England for hoeing wheat. It will get over ten acres a day, on level fields free from stones. Hand-hoeing in England costs from 75 cents to $2 per acre, according to the nature of the land, the hoe used, &c. The Dutch or scuffle hoe, is much the most expeditious and effective implement, when the land is not too hard or foul.

SOWING PLASTER.—It will expedite spring work to sow plaster before the busy season of plowing and sowing commences. Some farmers in Western New York are in the habit of sowing plaster on their winter wheat, for the benefit it has on the young clover. The plaster, however, has a tendency, it is said, to retard the ripening of the wheat, and the practice, therefore, cannot be recommended in districts affected with the wheat midge. Where plaster can be obtained for less than $5 per ton, a bushel per acre may usually be sown with much benefit on all the clover land. An easy and expeditious way of sowing plaster, is to take a one horse wagon, and place a half barrel or wash-tub at the hind end; into this put the plaster. The sower seats himself on a board laid across the box, with his back to the horse. A boy drives the horse at a moderate pace, and the man scatters the plaster from sixteen to twenty feet in breadth.

PLOWING.—It is desirable to plow as early as possible, but it is a great mistake to commence before the soil is in good working condition. Land plowed while wet can never be got into fine tilth. For winter wheat this is not of such great importance, as the frosts of winter mellow the ground, and winter wheat requires a somewhat rough "pasture;" but for the growth of maximum spring crops, it is absolutely essential to have the land thoroughly pulverized and mellow. On this account, the practice of flopping over wide furrows is poor economy. Better plow an acre a day, in a thorough manner, seven inches deep and ten inches wide, than three acres in the balking way adopted by some farmers. It is next to impossible to make a good seed bed on land plowed in this manner.

FENCES.—If any new fence is to be made, it should be attended to this month, and the old fences should be examined and repaired. This work should not be delayed.

FUEL FOR SUMMER.—If not already done, saw up and store away in the wood-shed a sufficient quantity of fuel to last at least through the summer. Black-ash, basswood, elm, &c., split up fine and well seasoned, may be used in summer; reserve the hard wood for winter.

FRAUDS IN ARTIFICIAL MANURES.

Prof. S. W. JOHNSON, of Yale College, recently delivered a lecture on "Frauds in Manure," before the Connecticut State Agricultural Society, from which we make a few extracts, as given in the *Homestead:*

"The conclusion being arrived at, that our farmers do, and will continue to use artificial fertilizers, the lecturer approached the question, 'Can we command the supplies we need without danger of fraud?' In answer, he replied, 'The farmer is entirely at the mercy of the manufacturer, or dealer. The temptations to dishonesty are very strong on the one hand, and on the other the ignorant blunders of the manufacturer make abundant place for the farmer's money to leak away.'

"A fraud is selling to the farmer an adulterated or damaged fertilizer of established name, or imposing upon him worthless or inferior fertilizers under names calculated to deceive, and at exorbitant prices.' The points being granted, that where there is a chance there will be men found to deceive, and that where accurate knowledge is not necessary in a business, it will not be employed, Mr. Johnson proceeded to state the extent to which the manufacture and sale of fraudulent manures had been carried in England, France, and Germany, especially in the first named country. We cannot do justice to these extracts without giving them entire; they showed, however, a depth and ingenuity of villainy hardly conceivable without a knowledge of the facts. As we Yankees are not apt to acknowledge our inferiority to the English in anything we shall probably not have to wait long before a development of American ingenuity in this line will show our equality, even supposing that proof of no such frauds can now be shown. He said, 'The readers of the agricultural papers know the history of the Chilian guano fraud, which Joseph Harris, Esq., now of the *Genesee Farmer*, detected and traced to its source with so much fearlessness and ability. The result of my own numerous analyses of manures, which have been published in the *Homestead*, during 1856, show undeniably that there are yet among us men who think the farmer fair game for their plucking; and if any are disposed to excuse dealers generally from intention to defraud, the matter becomes perfectly plain, when certain of these who have never denied the accuracy of these results, thus virtually admitting their justness, covertly try to intimidate agricultural editors from copying them.'

"In England there are large manufactories of a substance called the 'The Article,' which under this name is sold to dealers, wherewith to adulterate guano.—And besides, guano is adulterated in many other ways. Mr. Nesbit estimates the lowest sum of which the English farmer is defrauded in guano alone at £100,000 per annum.

"Manufacturers get their wares analysed and the *chemists state their analyses in such a way as to mislead the buyer.* * * * * * * * * * * * * *

"Not only is it impossible often, to judge by analyses as they are stated, but a sample of a fertilizer sent to the chemist, the analysis of which, arranged so as to favor the dealer as much as possible, is published, may be a very different substance from that sent to market. * * * * * * * * * * * * * * * * * *

"The manufacture of manures has but just commenced; companies are forming all over the country. In Boston, New York and Philadelphia, companies have been recently formed with capitals of $100,000 each, for the conversion of slaughter-house refuse, blood, etc., into manure. The speaker went on to say and to show, that it is for the farmers by a united effort now to dictate to the traders, least by the creeping in of a multitude of 'tricks of the trade,' the matter gets beyond their control. We should say, 'we know what we want, and you must fulfill your promises—we will be humbugged neither by names or by prices—good goods at fair prices we want, and these only will we have.' This stand we may now take, by having such manures as are in market extensively analysed. He went on to show how these samples should be taken from different lots sold to farmers, and at different times to test the uniformity of manufacture, etc. Chemical Analysis is a much surer test than the application on the field for reasons already specified,

and in the long run on a soil, and with a crop adapted to the use of any particular fertillizer, it will agree perfectly with practical results. In fact, under any circumstances which would give any value to practical results, *chemical analysis will give the same in a few days time.*"

ITEMS SUGGESTED BY THE FEBRUARY NUMBER.

Last month's *Farmer* seems to me one of the most valuable numbers yet issued. Most of the articles are of a practical character, and not the least in importance is the leader on the question of abandoning

Wheat Growing in Western New York.—Very nearly had I come to the conclusion that "it did not pay" to grow wheat, but another year's experience convinces me that it will prove profitable under certain circumstances. What these circumstances are, your article well indicates. It is a fact which every farmer should "take to heart," that *rich, well-drained soils hasten the maturity of crops.* In corn, this is often observed, but it is no less true of other grains. Sow only those lands *best adapted* to wheat, putting them at first in the *best condition* for the crop, and selecting early maturing varieties, and the general product will be such, *in spite of the midge*, as to pay well for the outlay. We must have wheat, and *good wheat*, in Western New York, and I believe that it can yet be grown profitably. Last season, our crop averaged fifteen bushels; the midge injuring it probably about five bushels per acre. Let every farmer study your article, and sow just as much wheat as he can on *right soil*—as to fertility, character and drainage—in season, and in good order, *and no more.*

A Marsh and its Products.—This calls for no special comments at my hands, only I would suggest to "B. F." that *the mud* thrown from the bottom of the ditches is one of the most valuable "products" of his marsh. If he will take pains to spread it around—not leave it, as is too often the case, on the banks of the ditch—he will find it of the very highest value for any crop, and there will be a marked difference in the yield of the ground to which it is applied, if well mixed with it, for several years.

Potatoes, Etc.—Here are three good bits of experience in raising potatoes—dull indeed must the reader be, if he cannot profit from them all. I prefer growing "potatoes on clover sod," for I can do so with the least expense and trouble.

Agricultural Reading.—An interested reader of agricultural papers is always getting ahead of his neighbors who do not read. But it is a fact, not to be disputed, that some who *read* make a very poor use of their learning. Their practice lacks common sense, and so results in a failure many times, while the man of practical sense succeeds with only observation to guide him. How much better might he do with the added observation of hundreds as sensible as he, which a good paper would bring before him?

Docking Horses.—"A barbarous practice," surely, and one which ought to be reformed altogether. That, and the tight check-rein, are unnecessary inflictions on this valuable animal.

Re Grafting Old Apple Trees.—It is too often thought that all one has to do to renovate and renew an old apple orchard, is to cut back and re-graft it to new varieties. But this is not so. Well does "H. E. H." remark: "The result is simply to cause what life there is in the whole tree to be expended in a 'course of sprouts,' which in another year become more feeble than the old limbs were, and the tree, galvanized into life for a time, falls into incurable decline." *Manuring and cultivation* are required; plenty of the one, and the other of a thorough character.

Lima Beans.—One of your Rochester correspondents says: "Lima beans are good, but unless started in a hot-bed very uncertain." I never had much difficulty in growing Lima beans in my garden, since the first few years. But I save my own seed, and carefully save the earliest ripe for planting. Three years since, I started some early on pieces of inverted sod, and when warm weather came the third and fourth leaves started. They were planted out, and at the same time a few additional hills of dry beans, and the one ripened beans as soon as the other. As to the Horticultural bean, I never tried it. For a dwarf bean, the China Red-eye is excellent and early.

The Premium Essays.—The March number promises to be one filled with articles from new pens, called out by your liberal offer. I anticipate a rare treat from their perusal, and will not extend my "Items" farther, that you may have the room for better matter.

B.

Niagara Co., N. Y.

NOTES FOR THE MONTH BY S. W.

Blood Horses.—It would seem that there is much diversity of opinion among the magnates at the Annual Meeting of our State Agricultural Society at Albany, where, just now, the breeders of bovine animals are death upon the trial of fast horses at our County Fairs! Verily, they contrive to manage these things more profitably, if not better, in Vermont, where fast, blood horses are the great paying *staple* that puts millions in the pockets of Vermont farmers, while our New York farmers, vulgarly speaking, have to "dance in the hog-trough." Since the advent of railroads, fast horses have been growing more and more into favor, at enormously increased prices, and the canny Vermont Yankees have not been slow in reaping the golden harvest. It is well known that fat, sleek horses and serious coachmen are no longer tolerated in the thorough-bred city of Boston, and that even quiet families there, must now have fast horses, even at exhorbitant prices; and why should our New York farmers be discouraged from competing with Vermont for the trade?

Chinese Sugar Cane.—The New York *Tribune* recommends the South African variety of the Sorghum as better for syrup or sugar than that from North China. So far from this, the Cafrarian plant is earlier than the variety contributed by M. Marigny from China, and it is said to be better for its cereal and forage product, but less rich in saccharine than the Chinese. See *Bulletin d'Acclimatation* of the 9th of September, page 451.

A Question for Horticulturists.—Your Rochester correspondent plowed a piece of virgin soil that had lain twenty years a village common; the esculents he got from it the first year astounded him by their rapid growth. His mistake the second year was in applying that crude horse manure; this friable loam did not need its mechanical effects, as it might, had it been tenacious clay; and its chemical effects were injurious to all delicate plants, from their very

incipiency, as it disturbed that happy equilibrium of organic matter which nature leaves in her best virgin soils. Crude, unfermented manure, if I mistake not, destroys what BERZELIUS calls the "electro-chemical relation of bodies," and the proportions with which they combine with each other. Unfermented manure is worth more intrinsically than that which is fermented, but it is not so readily available; hence, I trench mine in deeply for those gross feeders, sweet corn, mangel wurzel, &c., planting cucumbers and cabbages on the same ground next year without manure. If cabbage plants are set out early on such a soil, every cabbage will head well, without a single exception, and many of them will have to be turned down in early fall to prevent the head from cracking open. Cucumbers and melons will do nearly as well, but I can say with your correspondent that the maximum crop of cucumbers I ever got was among large oak stumps, on a pure virgin soil of vegetable mould. Hence, it is safe to say that the analytical chemist is not yet born whose receipt for soil ingredients can equal Nature's mechanical and chemical combinations, when she is supplied with the means in the debris of her own organism.

SHALL WE ABANDON WHEAT GROWING IN WESTERN NEW YORK?—Your February leader was to the point on this subject. Your plea for more nitrogen, as the indispensable renovator of this cereal, than the plowing in of green clover can give, is well sustained by experiments in this best of wheat-growing counties. Here is an old Pennsylvania *Deutsche* farmer, who has paid for two or three large farms from the avails of wheat and clover seed, sold from his two hundred acre clay farm on the Cayuga Lake shore. I asked him why he could not get the same bright, plump wheat he did twenty-five years ago.—Strange to say, instead of charging his failure to the *weevil*, he replied that he had depended too much on manuring with green clover, because this system answered so well at first he thought it would last always; hence, he kept no other animals than four heavy plow-horses, two or three cows, a few sheep, and hogs to make his family pork, on his two hundred acre farm. When his wheat began to deteriorate, it was too late—his habits had been too well confirmed for him to turn stock farmer all at once, and he is now too old. He now admits that he always kept too few sheep; and that had he kept more stock, plowed in less green clover and pastured it sometimes instead, his wheat crops would not have thus sadly deteriorated. I well remember the time when this man exchanged his beautiful ridge farm of friable clay loam, only one hundred acres, for this clay farm of two hundred acres. Some shiftless farmers thought he had made a hard bargain, but the German knew what he was about. He set two steel-coultered PEACOCK plows to work in one large field, plowing that virgin soil which his predecessor had only harrowed over, and then the interminable dragging and rolling. That quiet farm, which seemed to enjoy a perpetual Sunday before, now seemed to me in a fair way to be plowed and harrowed and rolled to death; but at harvest the wheat came off, not in hundreds, but in thousands of bushels, and then the green clover was turned under in full bloom, while other large fields were cut before wheat harvest for hay, and again in the fall for seed. That this fine surface drained farm now fails to produce even medium crops of inferior wheat, only gives significance to the old Scotch adage, "No cattle, no manure—no manure, no corn."

A PLEA FOR LIMA BEANS.—Your correspondent recommends the Horticultural bean as the best pole bean. Without disputing the fact, I must say that the Lima bean is the greatest bearer and the best pole bean I have ever cultivated, and as early as any other pole bean; yet, like a tropical plant, it bears early and late, and to have early beans you must save for seed the earliest ripe and the largest pods. Pinch off the vines after they have reached the top of an eight foot pole. A few of the later product may be killed by an October frost, but the yield without them is legion. Along this outlet they may be planted by the 20th of May, but farther back a week later. Plant shallow. S. W.

Waterloo, N. Y.

CORRECTION—PLASTER FOR CLOVER, &c.

EDITORS GENESEE FARMER.—I notice you have made a great mistake in my article in the February number. You say I plastered every *seventh* year; it should have said *every year*. Plaster, I consider, has done a great deal of good on my land. It was the first thing that enabled me to raise good crops. Plaster gave me plenty of clover; clover hay made good cattle, excellent sheep, good manure, and this made good corn and wheat, and plenty of straw, and this kept increasing my manure, and still increasing my crops, or, at least, keeping them up when the crops of those who did not take the same course were failing. I sow all my grass land with plaster nearly every year, and it gives me abundance of grass, which not being too closely fed off, enriches, at very little expense, the land for grain crops. Thirty years ago I said I would sow plaster if it cost forty dollars a ton, and I would do so still. I never pay over four dollars, and generally but three, per ton, and yet, strange to say, many farmers never sow a bushel!

The true way is to sow plaster on all the grass land every year. By so doing you are feeding for grain. At least all the grass and clover land that is dry should be dressed with plaster; on wet or very damp land, it has little or no effect. Thirty-five years ago, a very worthy neighbor told me I should ultimately ruin my land if I sowed plaster; but I find he was mistaken—*it continually increases in fertility.*

When I said Mr. WRIGHT should not plow up subsoil in spring for corn, I did not wish to be understood as opposing deep plowing. When I want to deepen my soil, I do it when I fallow,—and that I can best do after corn, being less draft than breaking up a sod. I have noticed for some twelve years that the plows are generally made for easy draft, in place of doing justice to the land; that is, they are made rather to please the plowman than to make good crops. *The land-side is made to run a good depth, but the right hand side of the share runs quite shallow.* It makes the plowed land look smooth, but it is a great injustice to the crops. It makes the plows sell well to those who do not look under the furrow. I suppose you have seen ribbing done before sowing peas, in order that they might be thoroughly covered. I have done it for both peas and wheat; but, thanks to large wheel cultivators, we can loosen the surface at one-fifth the labor. Now, many plows in use are ribbing the land under the furrow. This fault should be remedied without loss of time. The first time I

noticed this was in the Trial of plows at the State Fair at Poughkeepsie, in 1844; but I have always felt a reluctance to come out against it; being something new, I expected to have many to oppose me; but you cannot have a very easy draft, and do justice to the soil. In spring, go into a field where you see a team plowing stiff sod with ease, turn up a few pieces of the furrows, and I think you will find it ribbed under them.

I cannot answer "Virginia" about draining, for I cannot tell what he wants.

We are busy getting out clover seed—have already got one hundred bushels, and expect fifty or sixty more. Draining pays in clover as well as in wheat; it does wonders for both.

Tell the farmers in Monroe county to drain and manure, and they will not have to give up wheat raising. When I was draining against the freezing out of wheat, I little thought that I was draining against the wheat midge, but such has proved to be the case. On some black muck soils, however, I find that draining is not a sure preventive against the midge, but I think clay or sand put on the surface, after draining, would help it. JOHN JOHNSTON.

Near Geneva, N. Y.

A FEW FACTS FOR THE GENESEE FARMER.

MESSRS. EDITORS:—In response to your call for *facts*, I will attempt to pen a few which have fallen under my observation in my *brief* experience in agricultural matters, which you can use as you think best.

The *first fact* I will notice, and one which may not be of much consequence in *itself*, but give more significance to some *other facts*, is the *fact* of my "whereabouts." I "hail from" Northern Pennsylvania, a hilly country, with a cold climate, where winter prevails about six months in the year. There is quite a variety of soil within a few miles circumference, from sand and gravel to heavy clay and loam. The soil most common in this section, and with which my *facts* are mainly connected, is a heavy, clayey loam, mixed with stones and gravel, and resting on a *subsoil*, very hard and impervious to water, and usually called "hard-pan." This hard-pan varies in depth from one to two feet from the surface. Underdraining has been tried a *very little* here, but *enough* to convince those who *have* tried it of the great benefit resulting from it—rendering the soil more *tillable and productive*, by draining off the surplus water held by the hard-pan, and which must otherwise pass off by the *slow* process of evaporation.

My neighbor G., influenced by the high reputation and flattering recommendations of the subsoil plow, a few years since purchased the "animal," and has used it on his land, which is of the same "hard-pan" aforesaid. His neighbor B. considers it a failure, and thinks that G.'s crops are growing *less* instead of *more* where the subsoil plow is used, the advocates of said plow to the contrary notwithstanding. Will those who recommend the "subsoil plow" be kind enough to state the *kind of soil* on which it is used? I believe it will not work equally well on *all soils*. Will any one give their experience in the use of it on the "hard-pan land" that I have mentioned?

On the use of ashes, leached and unleached, I can speak with confidence, having seen very encouraging results from their use on grass. On a meadow of the aforesaid soil, which had been in grass several years and nearly run out, leached ashes were spread on in the fall at the rate of about forty bushels to the acre. The next season the hay crop on that part treated with ashes was *more than double* what it was on the rest of the field, according to the extent; and the season following the effects of the ashes were nearly as great—the grass growing more luxuriantly, and keeping green longer than the rest. *Unleached* ashes were tried in *smaller* quantities, with similar effect. For reclaiming grass land that has been cropped for years, I think there is no manure, accessible to *all* farmers, that is as beneficial as *wood ashes*, as they contain, to a great extent, those elements which have been exhausted from the soil by the growing plants. More anon. JUVENIS.

Jackson, Pa.

[REMARKS.—We are much obliged to our correspondent for the above facts, and hope to hear from him frequently. We have never known subsoil plowing *injurious*; but we have in several instances seen diminished crops on land that was plowed unusually deep for the first time. The Michigan double plow is frequently called a subsoil plow, but it is a misnomer. The true subsoil plow follows in the furrow made by an ordinary plow, and breaks up the subsoil without bringing any of it to the surface. The Michigan double plow, on the other hand, brings the subsoil to the surface. This, though generally beneficial, is sometimes injurious for a few years. Will our correspondents, in writing on this subject, please bear this distinction in mind, and inform us which of these two plows is used?]—EDS.

ERGOT THE CAUSE OF FOUL IN THE FEET.

MESSRS. EDITORS:—In the February number of your useful paper, at page 50, C. FORD makes an inquiry concerning a "Disease in the Feet of Cattle," and asks, "Do any of your correspondents know anything about it?"

I have formerly known much of this disease, but of late years, since our farmers have paid more attention to the rotation of crops, there has been comparatively little of it in Western New York. I have visited many herds of cattle where this disease prevailed, and in some instances where the whole herd was affected, and in every instance have been able, by examining the mow, or stack from which the cattle were fed, to point out the cause, which has been no other than the *ergot*, or *smut*, upon *speargrass*. The speargrass so affected was cut, in most instances, from fields that had been in grass many years. In some years the grass produces more of this smut than in others, on the same land. Farmers are hardly aware of the injury done to their crops and stock by the *Cryptogamous* plants, most of which are poisonous, and some very injurious to crops, as rust on wheat, smut on spring rye, wheat and oats, rust or disease on potatoes, &c; and in some instances, I have known the health of families injured from the use of food which contained parts of those plants. I was once consulted by a family where every member was complaining of pain in the feet and limbs. I was convinced that some part of their food was the cause, and therefore inquired into and examined all articles of their diet, and found that they were making use

of spring rye for bread; and on examining the rye, before ground, found a large portion of *ergot*, or spurred rye, in it, and on inquiry found they had taken no pains to separate it before grinding. They afterwards separated the ergot, and all recovered, although they continued to use the rye for bread.

I once raised a fine crop of spring rye, which had much ergot upon it. I had it drawn to the barn in dry weather, when much of it shelled off and dropped upon the barn floor. After the rye was all in the barn, the floor was cleaned up, and the rye and ergot which dropped upon the floor was cleaned from dust and put into the swill barrel, without my knowledge. The next morning my hogs were fed from the barrel; towards evening I noticed the hogs were all lying down, and seemed to have nearly lost the use of their limbs. On inquiring into the cause, I found the ergot in the barrel from which they were fed.

If Mr. Ford would avoid the disease in cattle that he complains of, let him pay proper attention to his rotation of crops; and should he find any piece of speargrass with ergot upon it in his mowing grounds, he had better allow it to remain upon the land for manure than put it in his barn to feed to stock.

New Haven. G.

A DOZEN RECEIPTS WORTH SAVING.

An esteemed correspondent sends us the following receipts. They cannot be allowed to compete for our Premium for the Best Dozen Domestic Receipts, and we accordingly publish them as an ordinary communication:

Scratches on Horses.—Rub the part affected with plaster of Paris, once a day, until a cure is effected; or, wash the part effected clean with castile soap suds, and oil it well with curriers' gurry every other day. In either case, keep the horse out of the mud.

Grafting Wax.—One part beeswax, two parts tallow, four parts rosin. Mix together, and work it like shoe-maker's wax.

Cure for the Sting of a Bee.—Saleratus, wet with water; or fine salt applied in the same way.

To Cure Horse Distemper.—Tar, fed with a paddle.

For Bots or Bellyache in Horses.—Half pint new milk, half pint molasses, one table-spoonful saleratus; or the following may be used: half pint vinegar, half pint soft soap, half pint gin, half pint molasses. Put them together and shake them well, and pour down while foaming.

For Curing Hams.—Half pint molasses, quarter pound sugar, three ounces saltpetre, two ounces saleratus, one quart salt, to each pail of water. Make enough to cover the meat.

Liniment for Wounds or Bruises on Horses or Cattle.—Half pint alcohol, one ounce oil spikenard, one ounce British oil, one ounce oil gannum, one ounce spirits turpentine, one ounce camphor gum, one ounce soap, made fine. Put all in a bottle, and cork tight.

For Colic in Horses.—Tie a small piece of tobacco on his bit, and exercise him moderately.

To Make Yellow Butter in Winter.—Feed carrots; or grate two ounces for each quart of cream—put it in water, and strain it in the cream.

To Keep Bugs from Vines.—Mix a table-spoonful of spirits of turpentine with a quart of plaster; put it in the hill every other day, as long as necessary. Or what is better, coop a hen with young chickens; the chickens will soon destroy the destroyers.

To Make an Excellent Salve.—Take alum, castile soap, and camphor gum, of each a lump as large as a walnut; pulverize them well, and mix with a gill of honey, cold; then melt a lump of beeswax and a lump of rosin, the size of a hen's egg, together, add them to the first, and stir until cold.

ANOTHER PROFITABLE FLOCK OF SHEEP.

Messrs Editors:—I am decidedly opposed to large stories about crops, stock or any thing else; but seeing an article in your January Number, headed a "Profitable Flock of Sheep," I thought perhaps it might interest many of your readers to see the advantage of good markets, and also whether "any good thing could come out of Jersey," I give at present the following example. In the fall of 1854, Mr. Garret Leming, of Monmouth Co. N. J., purchased sixteen ewes from a drove of western or native sheep, for $2 50 a head; he put a pure blooded South Down buck with them; in the spring of 1855 they produced twelve lambs, which were sold for $105 in June; the sixteen ewes averaged a little over one dollar per head for wool; in September these ewes were worth $4.50 per head.

Lambs sold for	$105 00
Wool,	16 00
September ewes worth	72 00
	$193 00
First cost ewes,	40 00
Profit,	$153 00
Gain per head,	9 56

Gain per head $9.56 against a little over $4 in Mr. Smith's flock.

To show that this was not an extreme case, he last spring had

20 lambs from 16 ewes which sold for	$100 00
Wool,	16 00
Ewes sold for	72 00
	$188 00
First cost	40 00
Profit,	$148 00
Gain per head,	9 25

Now this gain was in eleven months, whereas Mr. Smith's were kept sixteen months. They ran to a stack of second crop clover hay through the winter, besides which they were fed about one pint of meal apiece for about three months.

I may send you other examples, but this must answer for the present.

P. S.—These lambs were sold to butchers, not for stock, but meat. J. C. Taylor.

Holmdel, N. J.

PLOWING AND HARROWING LAND.

Editors of Genesee Farmer:—Have any of your numerous correspondents tested the virtue of harrowing land that has been plowed in the early part of October, with a view to be plowed in the spring again?

In plowing land there are two objects to be gained—to destroy weeds, and to turn up new portions of soil, and it is a question whether the soil thus turned up in a rough or lumpy state, would be better if left

in that condition to the action of the winter frosts, or pulverized thoroughly with the harrow, with a view to have it ready at the earliest moment for spring operations. With what little knowledge of farming I possess, with heavy soils, I would prefer the former, and with tight soils, the latter mode of treatment.

In the December number of the *Genesee Farmer*, Mr. J. C. Adams, of Seymour, N. Y., makes some remarks regarding plowing, which might very profitably be taken notice of by some farmers, although it is a very rare thing in this country to see what he describes. He says, "leave about six furrows wide for a single team, and more for a double team." Would Mr. Adams enlighten us as to the width of his furrows, for it is certain, a horse cannot turn on much less than six feet, and then the plow would naturally be three or four feet behind. Also to draw a furrow and return in the same track, appears to me a waste of time and labor.

The benighted Canadians, when they are about to plow a field, if the headlands are not already marked out, proceed the first thing to mark them out not less than fifteen feet wide, and when the body of the field is finished, plow the headlands in the same manner as any other of the ridges of the field.

Andrew Wilson.

Augusta, near Prescott, C. W.

CULTIVATION OF POTATOES.

Haul out and spread your manure about the first of April; then take a plow and run a furrow about the middle of your patch, from end to end; drop your potatoes into that furrow, about ten or twelve inches apart, and then turn it over and cover the potatoes with it; then run the plow on each side, throwing the furrows towards each other, and drop potatoes in each furrow, and each furrow covering a row of potatoes, until your ground is all planted; then cover with pine shats, three or four inches deep, and your work is done until digging time, when you remove the shats before digging. I can raise more potatoes per acre by this method than by any other, and with a great deal less labor. The shats keeping the ground moist and cool, the potatoes flourish and grow during the dry, hot weather of summer.

Laurel, Delaware. W.

HISTORY OF MARL AS A FERTILIZER.

The use of marl as a fertilizer appears to have been known from the earliest ages. It is spoken of by the early Roman authors, but does not seem to have been used in Italy. Pliny mentions it as having been "found out in Britain and Gaul. * * * It is a certain richness of earth, *like the kernels in animal bodies that are increased by fatness.*" (What does he mean by this?) Marl, he says was known to the Greeks, "for is there anything," he adds, "that has not been tried by them? They call the marl-like white clay *leucargillon*, which they use in the lands of Megara, but only where they are moist and cold." But if the Romans had not discovered marl in Italy, they were aware, as Varro and others informs us, of its value in husbandry. "When I marched an army," says Varro, "to the Rhine, in Transalpine Gaul, I passed through some countries where I saw the fields manured with white fossil clay." This seems to have been what would now be understood by us as marl. This mineral manure was used by the ancient inhabitants of England before the time of Pliny. A statute, passed in the year 1225 (10 Henry III.), gives every man leave to sink a marl-pit in his own ground without being fined; a proof of an early practice of improving land by means of marl. There are leases on record, granted in the reigns of Edward I. and II., which compel the tenants to make use of marl. In the first English treatise on husbandry by Sir A Fitzherbert, entitled *The Book of Husbandry*, A.D. 1523, lime, *marl*, and fallowing are strongly recommended; and in *The Book of Surveyinge*, by the same author, and at the same date, lime and marl are mentioned as common manures. In a treatise on rural economy, written in the reign of Elizabeth, marl is said to have been discovered by Cole, a Frenchman, in the twelfth century. The historian prized it in his day, for he says, "It will carry barlie, wheat, and peas continually for twentie years without dung." This clay-marl is described as being of a "blewe collor, sometimes redd," fat and clammy, more adapted for loose dry land than moist, where "lyme rather serveth than this." It was considered much more durable than sand or lime, for the old adage was, "that a man doth sand for himselfe, lyme for his sonne, and marl for his grandchilde." Farmers were then mistaken, however, in expecting that it could supersede the use of dung: they sold their hay and straw, but found that no second marling would restore the quickly exhausted virtue of their land, until it had been repeatedly manured with dung; so that Barnaby Googe, in the middle of the sixteenth century, cites an old saying, that "lime and marl are good for the father, but bad for the son."—The white chalk-marl used in Norfolk, England, appears to have been in use for centuries, from the size of the oak trees growing in the old marl-pits, while the use of clay-marl seems to be of much later date.

Composition of Fat.—The fat of animals is a mixture of several chemical organic compounds, which are all distinguished by containing a very large proportion of carbon, united with hydrogen and oxygen, and by the absence of *nitrogen* and inorganic matters, which occur in almost all other parts of the animal body.

In the more liquid animal fat *elaien*, and in the more solid, margarine or stearine preponderates. Train oil, oil of almonds, and rape-oil, consist principally of of elaine; butter, lard, human fat, principally of margarine; and stearine, the hardest of the three, is found in larger quantities in *suet* than in the softer fats.

The same constituents which are found in the animal fats, exist in the vegetable oils and fatty matters. Thus, both animal and vegetable oils and fats contain carbon, hydrogen, and oxygen only.

Lime on Beans.—Leguminous crops of all kinds are greatly benefitted by lime—whether beans, peas, or vetches, as it not only increases the bulk of straw, but also greatly improves the quality of the grain.—Peas grown on newly-limed land are excellent boilers—a point worthy the attention of those who grow there for culinary purposes. Some farmers in England spread hot-lime over their beans when two or three inches above the surface, and afterwards work it into the land by means of the horse or hand hoe.

Plaster (sulphate of lime) has a greater effect on leguminous plants, such as clover, peas, &c., than on such plants as wheat, barley, and the common grains.

Genesee Farmer Prize Essays.

ON THE MANAGEMENT OF SHEEP.

WINTER.—In the first place, there must be provided sufficient sheds and yards to accommodate all the sheep comfortably—with good running water, easily accessible. The sheds should be enclosed tight, and the feeding racks be placed *in* the sheds, for two reasons: first, that the sheep may have dry hay at all times, without being exposed to winds and storms; and second, that the hay may be saved, as it is a fact that full one-fourth more hay is required if it is fed to sheep out of doors. If corn is not worth more than one dollar per bushel, it will pay to feed all store sheep a half gill each per day; and lambs should have as much as that, (a gill each would be better,) or its equivalent in some other grain, no matter what it costs. Towards spring, commence feeding the ewes with roots cut fine—or what is better, clover rowen—to induce a secretion of milk sufficient for the young lambs. Clover rowen will produce as much milk as grass—so that, by providing plenty of it, the ewes can drop their lambs in March, and they will be much larger the next fall, and consequently worth much more, than lambs dropped in April or May. In a large flock of ewes, there are always some that drop dead lambs; but if the sheds are tight and well littered, the loss of lambs will be trifling. As soon as the lamb has dropped, see to it that he gets on his feet and sucks the dam immediately. If he has not strength of his own, he must be assisted. If the dam is healthy, he will seldom require assistance more than once.

SPRING.—Great care must be taken with sheep in the spring. They should be driven to shelter from every cold storm; grain must be given to them until the pastures get good; they must have salt once a week during the whole summer, and once in two weeks during the winter. About the first of June in this latitude, or in the South in April or May, according to the climate, the sheep must be washed in running water until clean, recollecting that the water must be warm enough to make the men, standing in it to wash the sheep, *sweat* at their work; if colder, it is abusing both men and sheep. As soon as dry, or in about one week, they must be shorn by good hands, who do not get angry and handle them roughly while shearing them. The fleece should be folded up, flesh side out, very neatly, and packed in close, clean bins or boxes, until disposed of. The ram lambs must be emasculated, and all the lambs should have their tails cut off, at least as soon as they are four weeks old, as they bleed but little, and it does not hurt them so much as when they are older. Before turning out to grass in the spring, all the sheep should be tagged—that is, have all the wool on each side of, and under the tail, and some distance down between the hind legs, sheared close—to keep them from getting dirty and sickly. After the sheep are shorn, they should be marked with the owner's name, and put back to their pastures. They should be changed from one pasture to another as often as once a month. About the first of August, take the lambs from the ewes, and put them into good pasture, that they may not get poor. If you wish your lambs to come in March, put the ram with your ewes in October, (the average gestation of the ewe being one hundred and fifty-two days.) As soon as he has given a ewe one leap she should be thrown out, as more than that injures both the parent and the offspring. Use the *best* ram you can get, and the lambs will be good. He should be at least four or five years old—for if younger than this, or over ten years old, his lambs will be weak and puny. He should have all the grain he can eat, or he will get poor. As soon as he has served all the ewes, put him in a pasture alone; and it is better that he be kept by himself the whole year. Never use the same ram more than two seasons. *Never* sell the best ewes at any price. Whenever you buy a ram, buy the *best*, whatever it costs, and the flock will improve in quality, will be hardy and *profitable*.

FOR MARKING SHEEP.—Put into a pan a quarter of a pound of lampblack, two ounces of Venetian red, and linseed oil enough to make a good paint. Mark either with a stamp or brush.

TO CURE THE FOOT ROT.—Put into a quart bottle a quarter of a pound of blue vitriol, one ounce of verdigris, and fill up with chamber-ley. Put a quill through the cork, turn the sheep on its back in a trough, open the hoof and scrape out clean with a knife all the diseased flesh, put on a few drops of the above mixture, and a cure is effected. If there are but two or three lame ones in a flock, put some of this mixture in the feet of all the sheep in the flock—with this mixture, an ounce of prevention is worth *more* than a pound of cure.

TO CURE THE STRETCHES.—Administer a tablespoonful of pulverized saltpetre *immediately*, or the sheep will soon be past all cure.

TO RESUSCITATE LAMBS WHEN CHILLED.—Give a tea-spoonful of Thomsonian No. 6 in some warm milk, a little at a time, and wrap him in warm flannel.

Westfield, N. Y. D. A. A. NICHOLS.

ON THE MANAGEMENT OF HORSES.

THE colts should be kept tame. The field in which they are kept should be surrounded by a good fence, or they may acquire unruly habits, and much time be lost in hunting them when strayed from the pasture. The first and second winters keep them in a warm stable; if of brick or stone, it must be well ventilated from the top. Feed with good hay, and some bran, turnips or carrots, but not on grain, either whole or crushed, for it is binding, and will make tender-footed, if not crippled horses. The third winter, if large and strong, the colt may be harnessed and driven before a light sleigh, to get it tame and used to drawing. The fourth winter work it, but not too hard, and do not forget to feed well, but not too much grain. With this treatment, colts will, by this time, make good, serviceable horses. Water often, and but little at a time. In handling, be mild, but not timid. Do not drive too fast, nor load too heavy; groom well, and bed at night, to prevent rolling in the stable and getting fast; many a good horse has been lost in consequence of neglect in this respect, after being driven in the storm or till bathed in perspiration.

Canada West. J. LEE.

ON THE MANAGEMENT OF SWINE.

TAKE a pig eight weeks old, that was dropped the first of March, and feed it nearly what it will eat of milk, slop, and a little corn. About the first of No-

vember, turn it in with the boar; note the time. After that, feed it two-thirds as much as if fatting. She should not be confined in a small place. A week before she drops her pigs, give plenty of litter, and feed all she will eat, especially when she begins to build her nest. Give all the slop she will eat. After farrowing, do not feed anything under twenty-four hours, and then about three quarts of lukewarm slop. Feed sparing for ten days, after which give a little corn, and all the slop she will eat. As soon as the grass grows, turn the sow and pigs into a good pasture of clover and timothy, with running water. Turn your milk and dish-water into a cask with bran and shorts, and let it ferment; feed this regularly twice a day, morning and evening, and not oftener. As soon as corn begins to ripen, feed all they will eat, and no more. When the ground freezes they should be provided with a warm pen, and slaughtered about the first of January.

I usually slaughter when the hogs are about ten months old, and they dress from 250 lbs. to 300 lbs. I have just slaughtered two that were two hundred and seventy-five days old; one weighed 290 lbs., and the other 306 lbs. They were well fed, but nothing extra. M. R. Britten.

Spring Prairie, Wis.

CULTIVATION OF WINTER WHEAT.

[We have been unable to decide which of the two following essays is the best, and therefore award the premium to each of them.]

Two methods suggest themselves to my mind:—First, take a piece of land that has laid in clover two or three years, and graze the first crop with stock, let the second crop grow up, manure the land in the fall with all the manure you can spare, putting most on the poorer places, then later in the fall or early winter plow under the manure and clover in the following manner: Let one team go first and turn over the sod, and let a second team go behind and throw the soil upon the sod. The first plow will throw the sod and manure to the bottom of the furrow, and the second will bury them several inches deep. Plow the whole field in the same manner. In the spring, plant the field with corn, and give it good and clean culture through the summer. As early as possible in the fall cut the corn near the ground and remove it from the field, if possible, or if not, shock it up, and plow the ground in the manner above stated. The second plowing will enable you to plow deeper than the first, and to mix the manure more thoroughly with the land. Harrow until the soil is well pulverized; then sow five or six pecks of seed wheat to the acre, and turn it under about three inches; then harrow, and the work is done.

The second method is to take a piece of land, sod is the best, and manure, and plow it in May or June, in the same manner as above. In all dry weather during the summer, when it cannot be injured by tramping, turn the cattle and sheep on it at night, until the latter end of August, when it should be well cross plowed and harrowed; then about the middle of September plow it again and sow about the first of October, in the manner above stated.

About the first of October is the best time to sow wheat in this latitude, north of this, the middle of September.

The first method I think has greatly the preference to the second. It requires but little more labor, you get a crop of clover to feed down, and a crop of clover to turn under the first season; a crop of corn of sixty to seventy-five bushels to the acre the second year, with but little labor and nearly or quite as good a crop of wheat the third year as if the field had laid fallow; and if you want it, your field is ready set in clover, which will be sufficiently thick from the seed previously turned under. Thus you may continue in rotation any length of time—clover two years, corn, manured on clover sod the previous year, followed by wheat. Our land will improve under this rotation.

The deep culture above described has a wonderful effect on the wheat and corn crops, and on the soil; it gives a good loose soil for the plants to grow in, the best protection from drouth, and draws the water from the surface in wet weather, consequently prevents, in some measure, the throwing out of the roots and winter killing.

The best remedy against rust that I know of is to furnish the plant with the necessary food, which enables it to come up thick and grow up quickly upon the land. This food can be more cheaply and easily furnished here, by plowing under clover, and such manure as we can obtain at home, than in any other way. Larger crops may be obtained by more expensive culture and manures than by the above method, but I am confident for general cultivation, and in a rotation of crops, it cannot be excelled. If the land is wet and water is liable to stand on it, sow in lands of convenient width, in a suitable direction for the water to run off, leaving the lands open in the middle. The head lands should be left open that the water may pass off easily.

I am told by an extensive cultivator of wheat, that to take recently slacked lime and mix it with water to the consistency of thin white-wash and wash seed wheat in it, that it will entirely prevent the smut.—He has practiced it for years, and not a particle of smut is to be found in his wheat.

A. G. Mullins.

Chesters Store, Anderson Co., Ky.

CULTIVATION OF WINTER WHEAT.

Winter wheat in Western New York is the bread and money crop of the farm. Its culture is a subject of more importance to the farmers at the present time than any other that pertains to their occupation. All classes in the community are interested in its production, and are affected more or less by the pecuniary loss that results by its failure. The greatest enemy the farmers have ever had to contend with in raising wheat is the fly which attacks the head; all other flies or worms are harmless in comparison. There are towns in Monroe county where the destruction of the wheat crop is so certain, that its cultivation has been almost entirely abandoned. The evil is not a partial one. What is true in regard to such localities will soon be so in regard to all others where wheat is grown. It will eventually reach every farm in the wheat growing districts of the country, and the profitable cultivation of the wheat crop will be at an end. In view of these facts, it becomes the farmers to be awake to the discovery of some remedy, and ready to use any means by which this evil can be prevented.

The application of lime to the heads of the wheat has been thoroughly tried, and the result proves that it is only casting dust in one's own eyes. The only remedy I have seen suggested, that has much promise of success, is to plow the wheat field after harvest.—This, when the work is well done, I believe will be effectual. At harvest time, before the grain is drawn from the field, the greater part of the worms descend to the ground where, according to a Scotch writer, they burrow to the depth of about half an inch.—From this time they are in a dormant state, until changed into a fly, when they arise into the air, and are ready to re-produce and perpetuate their race by making a deposite in the heads of the wheat—which in due time becomes a worm that destroys the grain. If the land should be thoroughly plowed the larva would get buried so deep that it could not receive the amount of heat and air necessary to its transformation, and consequently it would be destroyed. The worms that might get carried with the grain to the barn, would probably be destroyed in the manure If more convenient for the farmer, and he did not wish to sow winter rye, the plowing might be omitted until spring. The rule should be to *plow the land deeply any time before the fly leaves the ground.* With winter or spring rye or barley should be sown clover seed, and plaster the succeeding year. This gives a heavy growth of clover, which, in the month of June, should be plowed under for wheat. By this course there is a crop every third year. If it should be considered an object to raise wheat every second year on the same land, some broad-leaved annual plant should be grown, to be plowed under for manure; and for this purpose, perhaps, there is nothing better than the ruta baga or Swedish turnip.

In adopting this system of rotation, it is supposed that the soil is in good condition at the commencement, and capable of producing remunerating crops of wheat by the green crop. If not, the farmer ought to know it and apply such manure as experience has taught him is the best. If compost or decomposed barn-yard manure is used, six loads to the acre is ordinarily sufficient. This should be spread directly and evenly from the wagon at seed-time, and then the manure and seed can, with the gang-plow, be buried together.

Notwithstanding the danger from the Hessian fly, wheat should be sown as early as from the last day of August to the sixth or seventh of September. More wheat has been lost by late sowing than by the Hessian fly. When a green crop is plowed in for wheat, it should not be turned back again to the surface by deep plowing, but the land should be superficially worked with the cultivator or gang-plow. More or less wheat is yearly destroyed by snow—which drifts by the fence running north and south on the west side of the wheat-fields. If a wire fence can be made economically any where on a farm, it ought to be placed on such lines.

In order to carry out successfully the plan proposed, for the destruction of the wheat-fly, it would be necessary that there should be a concert of effort amongst the farmers. If the wheat-growers of Monroe county would meet and pledge themselves not to leave any land unplowed, on which they had raised wheat, the result would be the exemption of their fields from the ravages of the fly, and good crops of wheat as in former years.

JOSEPH ALLEN.

Adams' Basin, Monroe Co., N. Y.

CULTIVATION OF INDIAN CORN.

I HAVE made three successful experiments in the cultivation of Indian Corn. The first was on a peice of about four acres, that had lain as an old slashing and pasture, and never been plowed, and but recently cleared off. The soil was a dark, marly-clay, mixed with sand and gravel. I commenced breaking it up the first of July, and put the plow about six inches deep. I then harrowed it lengthway's of the furrows, and on the first of August, harrowed it again, across the furrow, and cross plowed it eight inches deep, and on the 10th of September, harrowed and cross plowed it again ten inches deep, intending to sow it with wheat. On the day set for sowing, it commenced raining, and continued so wet that I gave up the idea of sowing it, and concluded to sow it with spring wheat. It lay all winter in seven paced lands with deep dead furrows. Early the next spring, I cross plowed it full ten inches deep, but was again prevented sowing it with wheat in consequence of the heavy spring rains. I then concluded to try corn, and, on the 2d day of June, I commenced to plow it for the fifth and last time, ten inches deep, and harrowed it fine, and furrowed it lightly, with a one-horse plow, three feet apart, and planted in rows, two feet apart, the other way, without furrowing across, putting four grains in each hill, of a large eight-rowed yellow variety.

Ten days afterwards I harrowed it lengthways with two horses, and a three cornered harrow, taking out the forward teeth, so as to pass on each side of the corn plants. One week after this, I went between the rows with a one-horse plow turning the furrow to the hill, and on the 4th of July, I passed through the rows with a cultivator and leveled down the furrows. Then, with a hoe in hand, I went through it, and carefully removed every weed that was to be seen, and leaving the earth as even as possible. At this time the stalks had began to joint at, or near the root,—after which I consider it injurious to plow or cultivate among the corn, as the roots extend from hill to hill. At the setting of the ears, I passed over the field, and removed every weed by hand that could be found. The produce was 118¾ bushels of shelled corn per acre.

The second experiment was on three and-a-half acres of nearly the same character of soil as the first. It had been plowed ten inches deep and sown with wheat, producing a crop of 35 bushels per acre. I then took off a good crop of clover and timothy hay, and in the fall covered it evenly over with yard and stable manure, which, together with a good growth of after-grass, I turned under ten inches deep. This was in the month of October. The following spring, I harrowed and cultivated it till it was quite mellow, and then cross plowed it about five inches deep, being careful not to disturb the sod underneath; and, after smoothing the furrows down with a harrow, furrowed it lightly four feet apart, north and south, and three feet east and west, and planted it the 24th day of May, one acre with the *Red Cob Ohio Dent*, and the other two acres and-a-half with the Twelve Rowed Dutton. When the plants were well out of the ground, I sowed broadcast over the field a compost prepared as follows: fifteen bushels of dry hen manure; fifteen bushels of good unleached ashes; five bushels of plaster; and three bushels of fine dry salt, mixed well together and made fine.

As soon as the rows could be plainly seen, I passed over them with the three cornered harrow in the manner before described.

From the acre planted with the Ohio variety I harvested 130 bushels of ears of sound corn, of which, three half bushels of ears would give a bushel of shelled corn, making nearly 87 bushels of shelled corn per acre. The Dutton yielded about the same number of bushels of ears per acre as the Ohio variety, but not as many bushels of shelled corn.

The third experiment was on five acres of land from which I had taken a crop of wheat *straw*—the midge having destroyed nearly all the grain. About the middle of May, I spread out on the land a good coat of manure, and plowed it under, full ten inches deep, together with a good start of young clover that was sown the previous spring. I then harrowed it till it was finely pulverized, which required far less labor than in the former case, where the land was plowed in the fall. The land was then furrowed and planted with the same varieties, harrowed and cultivated, and top dressed, as in the second experiment. The yield was *five bushels per acre more than* in the previous trial with fall plowing, and which required more attention than this. S. Davidson.

Greece, N. Y.

ON THE CULTIVATION OF POTATOES.

The cultivation of the potatoe has, for the last few years, become of vast importance to those farmers who are situated near a market, and has proved very remunerative. So important has it become, that time spent in the investigation of best methods of cultivation, and best varieties, is well and profitably spent. There exists a very great diversity of opinions in regard to the manner of cultivation, quantity of seed used, time of planting, and the varieties most profitable. Almost every kind of soil will produce a—large or small—crop. The soils, however, which are best adapted for the cultivation of potatoes are sand loam, chestnut loam, and gravelly loam. Dry land is the surest to produce a crop of sound potatoes.

To prepare a field for a good crop of potatoes, select a sandy loam, seeded with clover, which was mowed, or pastured the year previous, if such is on the farm, and plow it twelve inches deep, about the middle of May; by that time the clover will have started well, and it will furnish a good coat of manure to turn under. After plowing is done, roll with a heavy roller, and then harrow thoroughly; after which, mark out the field with a small corn plow, in straight rows, both ways, about three feet apart, and as deep as the plow will run and not disturb the sod. The field is then ready for planting which should be done immediately. The potatoes may be cut a few days before planting, to save time. About six or eight bushels to the acre should be planted. Cut a middling sized potatoe into four pieces, and put two pieces in a hill. Drop them by hand, and cover with a hoe three or four inches deep.

Before the potatoes break through the ground, harrow the field thoroughly with a light harrow to distroy all the weeds that may have started, which will greatly facilitate the first hoeing, and disturb the potatoes but very little.

For the first hoeing use the corn cultivator both ways between the rows, and if the weeds are not to be feared, let them grow a few days longer and cultivate again, and follow with the hoe, putting a very little dirt up to the potatoes, and leaving a flat hill. The second hoeing, use a shovel plow, or a horse hoe, which will throw up the dirt on each side of the hills, and leave a perfect hill and very little to be done with the hoe. After this the ground should be kept clean from weeds, and if very dry weather, the horse cultivator should be used between the rows as before.

The kinds to plant for fine quality and that command the highest price in market, are Mexicans, Purple Mercers, Carters, and Blue and White Pink Eyed. For early potatoes, White Mountain Junes, and Early Junes. For late crop, Long Johns, English Whites, Flesh Colored and Round Pink Eyed.

Some farmers plant in drills, and it is a very good method, and may produce larger crops than planting in hills. For drills, mark the ground one way three and-a-half feet apart, and about four or five inches deep, and drop the potatoes, one piece in a place, about a foot apart; two good eyes in a set is enough, and if the ground is rich, one eye is sufficient. They may be covered very expeditiously and well with a small plow; and just before they come up the ground should be harrowed, as before described. After cultivation, the same as when planted in hills.

Late planting is almost sure to produce the largest crops; but early planting is the best preventive of the disease. I have raised Early Junes for twenty years, and never knew them diseased. My experience, since the rot commenced, has been that early planting, on dry ground, gives the soundest crops. The Purple Mercer, with me, are the most liable to decay.

Many new varieties of potatoes have been, and are being introduced, and some of them may prove a valuable acquisition to our already well tried stock, and others, like the Rohan may run well for a season and then sink never more to rise. The Fluke Kidney lately brought from Europe, and circulated through the Patent Office, and by the New York State Agricultural Society, two years since, bids fair to be popular, and should be placed on the list that "promise well." I received a few tubers from B. P. Johnson, Secretary of the State Agricultural Society, two years since, and the first year they were not fairly dealt by, and were quite small, but I planted them again with better success, though they received no better care, and this spring I mean to plant and care for them, the best I know how, and see what they will do.

I have another variety, which promises well, that I obtained at the State Fair, and from two potatoes planted, I dug a bushel of fine large potatoes. They are called the Oregon. I intend to try them another season, and if they meet my expectation, you shall hear from me. Every new variety should be well tried before recommending to the public. No new kind should be recommended unless, on trial, it proves to be superior to some of the old varieties; nothing is gained by multiplying varieties unless superior, and then five or six are as many as will be profitable to plant. The same variety does not always do as well one year as another, and for this reason it is better to plant more than one variety.

Harvest as late in the fall as frost will permit, and if buried in pits cover well with straw, and a little dirt, then another coat of straw, and, finally, a heavy coat of earth. E. S. Hayward.

Brighton, Monroe County, N. Y.

CULTIVATION OF ONIONS.

A good crop of Onions may be grown with as much certainty as corn, if rightly managed, but to do this three things are necessary; first, the ground must be rich, made so by a plentiful supply of hog manure; second, the Onion seed must be sown early, say last of March, or first of April; and thirdly, they must be hoed often, and kept free from weeds. The seed should be soaked twelve hours in rain water; the water should then be turned off, and the seeds kept moist until they sprout, which will be in two to four days, according to the temperature. If you wish them to sprout soon, place them on a mantle piece where they will feel the warmth of the fire. In case it should rain, and make your soil so wet that it can not be worked, and the seeds are likely to sprout too much, put them in the cellar or some cool place. In this way you can manage to have them sprouted just as you may require. Next prepare your ground by plowing, harrowing and rolling, until it is very fine and clear of lumps. Then lay off your beds three feet wide, raised slightly in the middle; mark the rows across the beds with a rake having teeth twelve inches apart for the purpose. The seed should then be sown with the thumb and finger, and covered with the hand. Nothing now remains to insure a good crop, but sunshine and showers, and diligent culture, keeping them clean of weeds, and stirring the ground often with the hoe. HORATIO MARTIN.

Greenbush, Iowa.

ON THE MANAGEMENT OF A PRAIRIE FARM.

In compliance with a request, in the January number of the *Farmer*, I will endeavor to give you my *modus operandi*, with five years experience in the State of Illinois, in the management of a prairie farm.

BUILDINGS AND FENCES—Taking it in the natural state, the first thing after purchasing, is building a house, and other necessary out buildings, the details of which the circumstances and taste of the owner, himself, will suggest. The next thing to be taken into consideration, is fencing. As timber is scarce and difficult to be procured, the most economical mode is to get good White Oak, or Walnut posts, and set upon the boundary line of the farm, according to the length of the boards; supposing them to be Pine, expressly for this purpose, fourteen and sixteen feet is the most desirable length, putting two posts to the panel, and as hogs are not suffered to run at large, three boards, six inches wide, nailed to the posts, will turn all stock; even two boards will answer a good purpose. The fence should be set outside of the line five or six feet, so as to leave room to set a hedge in the line, the following spring, after breaking.

BREAKING—The best method of breaking prairie sod, is to get three yoke of cattle, and with a sixteen or eighteen inch plow, one man and team will break from two to two-and-a-half acres per day, which, if hired done, will cost, at the present prices of breaking, two dollars and fifty cents per acre, and board for hand and team. The plow should not go deeper than two or three inches, as the shallower the furrow the sooner the sod will rot. While breaking is going on a boy should follow the plow, and, in every third furrow, drop three to five grains of corn, which without any further attention, if it should be a good growing season, will make a fair crop of corn. When breaking is done, the cattle will do to fat the coming winter.

FALL CROP—In the fall, a portion of the newly broken land should be sown, with good clean winter wheat. The best way of preparing the ground for this crop, is to take a common scouring plow and run lengthwise with the furrows, a little deeper than broken the first time.

ORCHARDS, &c.—Arrangements should be made for setting out an orchard the following spring, and for planting hedges, groves, &c. As soon as the frost is out of the ground, in the spring, an orchard should be planted with fruit trees, of the best varieties to be obtained, and suitable shade trees ought to be planted about the house.

HEDGES—The next operation demanding immediate attention is setting out hedge, for a living fence; the ground where the hedge is to grow should be well worked, the fall previous, by plowing a ridge four feet wide; in the spring, say the month of April, take the center of the ridge, for the line of the hedge, and with a team of horses, run a straight furrow, six or eight inches deep. I would recommend the Osage Orange, as it is hardier, and will make a fence quicker than the Thorn. The plants can be purchased in this vicinity for two and-a-half dollars per thousand. Set the plants up against the landside of the furrow that has been made, and as the roots are straight, they may be pressed a little deeper down; then, with a hoe, draw the dirt up to them, packing them with the foot. There are differences of opinion about the distance plants should be set; my distance is ten inches apart, or twenty plants to the rod—this, I think, is plenty close enough; if properly treated they will make a tight wall, and a barrier against all stock, hogs included, but the latter should not be turned into the field without ringing.

GROVES—Planting groves has been too much neglected, by the farmers of Illinois; there is nothing so much adorns a prairie farm as a good locust grove, and no time should be lost in commencing it; in ten or twelve years from the seed, it will furnish material for fencing and building, which will always be required on the farm.

VEGETABLE GARDEN—By no means neglect fencing a suitable piece of ground for a garden, at least half an acre; a whole acre would be none to much. My motto is, more vegetables, and less hog and hominy.

SECOND YEAR—SPRING CROPS.—Now comes the year for the first full crop of all kinds of grain.—What land is not wanted for corn, this season, should be well prepared for spring wheat and oats, by being well plowed before sowing, if not plowed in the fall previous; by fall plowing there is the advantage of sowing a little earlier, which is always desirable.

STOCK, SHEDS, &c.—The next thing is the management of stock; when you have prairie range, your cattle will enjoy the privilege of roaming over them, but if not, of course suitable fields must be provided. In winter provide a good yard, and shelter from wind and storm; the latter are not frequent, notwithstanding cattle should be sheltered; it is too much the prevailing custom, of farmers generally, to let their cattle run at large, over the whole farm, without providing any shelter at all, for which they cannot be too severely censured. They who have not the means to erect large commodious sheds, can put up forked sticks, covered with slough grass, to form a

thatch; if carefully done this will turn water for several years; good pens should also be provided, for hogs, which can be done in the manner described above; with a plank floor under the sheds or hovels, the fowls will have a good warm roost.

ROTATION OF CROPS.—The proper rotation of crops is too much neglected by the farmers of Illinois; after corn, spring wheat and oats should be sown, and the land seeded down with clover; after it has lain two or three years in pasture, then in the summer, turn it under, and sow it with winter wheat, two bushels per acre; plant corn on clover sod or wheat stubble, always manuring your corn ground, as far as it goes. J. H. ANTHONY.

West Jersey, Stark County, Ill.

ON THE BEST METHOD OF FENCING A FARM.

HAVING accurately surveyed your farm, determined the number and size of your lots, and established the lines of your fences, prepare the ground by plowing and harrowing thoroughly a strip at least one rod in width, and totally exterminating all brush, briers, and noxious weeds therefrom. The advantage of seeding this strip to grass need not be commented upon.

The kind of fence to be built will depend principally upon the plenitude of any particular kind of material, and will vary accordingly in different localities. Efficiency and durability are the requisites of a good fence; beautity is desirable, but the expense of building and repairing is the chief consideration. In a new country where timber is a nuisance, rails will be most advantageously used. Rail fences should be at least four and a half feet high when settled, and when made of ash, oak, chestnut, or other desirable timber, and not shaded, will last twenty to thirty years. I consider the Virginia or common worm fence the most desirable style. The corners should be slightly raised from the ground, on stones or blocks, and if locked with the crooked and otherwise inferior rails, it withstands the force of wind and animals with great efficiency. When timber becomes scarce, the good rails remaining may be put up into a straight fence, by the aid of toggles and stakes. I should have it two feet wide at bottom, five rails under the stakes, and so narrow at top that the fifth rails will lie close together at the joints. One light rail with one end under one pair of stakes, and the other over the next pair, and another light rail over all, completes the fence. The size of the toggles increases the height of the fence, and toward the top where large cracks are admissible, may be six or eight inches thick. The strength of this fence depends upon the stability of the stakes, which for the sake of durability should be set top end down.

Where timber is so scarce as to render it of pecuniary importance, and still plenty enough to be the cheapest fencing material, it will be most economically used in the shape of posts and boards. The posts should be of cedar, chestnut, swamp oak, or some other durable wood, from four to six inches thick, and at least two feet, (top end always) in the ground. Four boards, six inches wide, by leaving suitable spaces, make a fence four feet high, which will be found fully equal in efficiency to a rail fence four and a half feet high.

Of course no judicious farmer will waste timber in fencing, and till fields covered with stone. Make stone fences *wide*. Much better have one three feet high, and thick enough to hold posts for a board top, than have the same weight of stone carried up four feet high, and so thin as to be in constant danger of tumbling down.

If you have no stone "lying around loose," little or no timber, or would save what you have for other purposes, plant hedges. When you have a decaying fence, and would have a perpetual one, plant a hedge by the side of it. In fact wherever you will need a fence a few years hence, plant a hedge. The desirable qualities of a hedge plant are, 1st. Adaptability to soil and climate. 2d. Quick, thick, and thorny growth. 3d. Disinclination to spread by sprouting. 4th. The plant should be so distasteful to animals that they will not browse it. I would suggest a trial of the Sweet Briar. SOLON COOLEY.

Four Towns, Oakland Co., Mich.

DESTROYING RATS, MICE AND OTHER VERMIN.

IN looking over your Premium List in *Genesee Farmer*, I see you ask for the best means of destroying Rats, Mice and other vermin. The following plan I have adopted several times with perfect success: Take one quart of barley-meal, (Indian meal will do,) half a pint molasses, two eggs, a small piece of butter, a little salt, and enough sour milk or water to make it soft, if necessary, and three drops of oil of caraway; let this be well mixed into a cake and baked. When the cake is cold, take a piece, (first rubbing a drop or two of caraway oil upon your fingers that the rats may not smell them,) and rub it into fine crumbs upon a dish or platter. Place the dish in some outhouse or quiet part of the premises where the rats frequent, and allow nothing to disturb it. The rats will soon find it; they may not eat much the first night or two, but as soon as they find that it does not hurt them they will eat it with avidity. Repeat this five or six evenings about the same hours each time. And when they have all been collected together and have great confidence in the food and the man who feeds them, give them a good dose of arsenic in the last meal. All those, if any, which do not get any will leave the place immediately.

If it be desired to catch them alive, use the same means, but without the poison, and spread the cake on a board of a larger size than the dish, so as to give them more trouble to collect it, for it will be observed wherever they can get a mouthful they will run away to eat it. To prevent that, give them as much trouble as you can without frightening them. Choose a quiet room or cellar, where they frequent; stop up all the holes but one, and over that fix a little sliding door or something that can be pulled down over the hole easily; let a string be attached to this and carried to the opposite corner of the room, at which corner hang a robe or horse blanket, that a man may stand behind; let this hang there all the time; feed them five or six evenings, always rubbing a drop or two of the oil of caraway upon your fingers and upon the soles of your boots before breaking the cake and going into the room; a few drops should also be put on the robe. The last evening, stand quietly behind the robe and when they are all in the room, let the slide down over the hole. The best way of catching them, is to have another hole in readiness where you can set a cage trap upon the opposite side and drive them into it. JOSIAH SALTER.

Rochester, N. Y.

ON BUTTER MAKING.

The milk room should be built on the north side of the dairy house, digging two or three feet into the ground, and stoning up with a double wall, well pointed with lime mortar. The bottom should be plastered with water lime cement, such as is used for cisterns; distance between the bottom and upper floor not less than ten feet, the sides ceiled up and filled in with dry tan bark; two or three latticed windows near the sill to let in light and air; the temperature to range from 55 to 60 degrees, regulated by fire in cold, and ice in warm weather, by wrapping a chunk in a piece of carpet and placing in the milk room.—The room, churn, pans, and pails, to be kept strictly neat and clean; the milk to be strained as soon as drawn from the cows in ten quart tin pans set on the bottom of the milk room in warm weather, and on racks in cold. The milk should stand until it coagulates, when the cream should be taken off and churned in a common dash churn, with any power prefered. I prefer dog power, which is generally used in this country. Cream should not stand over twenty-four hours before it is churned;—in fact the quicker it is churned after it is taken off the better. The temperature of the cream in the churn should be about 55 degrees. As soon as the butter separates, draw off the butter-milk and wash the butter with pure cold water until it runs off perfectly clear; then work in thoroughly three-fourths of an ounce of first rate Ashton salt to each pound of butter, and immediately pack solid, in from fifty to one hundred pound tubs, according to the size of the dairy—When the tub is full, cut a piece of white cotton cloth the size of the cover, wet in brine, and tuck it down snug over the butter; cover the cloth with salt at least half an inch thick, moistened with water, so as to form a paste, put the cover on tight and place the package in another tub, with two inches of salt in the bottom and one inch space around the sides with two inches at the top; fill in with salt, and cover tight so as to exclude all air. Set the tubs in a cool, dry cellar, and I will warrant it to keep any desirable length of time as fresh and good as when first made.

H. H. Taylor.

East Rodman, Jefferson Co, N. Y.

ON THE INFLUENCE OF AGRICULTURAL PAPERS—AND REASONS WHY FARMERS SHOULD WRITE FOR THEM.

There is no occupation that tends more to the permanent wealth and happiness of a nation, or to the real beauty of a country, than that of properly directed agriculture. This wealth consists mainly in the products of the soil, and in the soil itself; and that beauty of farm scenery which "delights the eye" must proceed from the plans and operations of the farmer being laid and carried out in a tasteful—yet skillful and economical manner. To do all this the farmer must have knowledge, and he cannot obtain this knowledge from his own experience, because that would require too much time and capital. He should therefore, profit by the experience of others; and this he can do the most cheaply by reading the agricultural papers. In these, when they are properly conducted, he will find recorded the experiments, the hints, and the practical results of his brother farmers, as well as carefully prepared editorials. It is chiefly in this way that the agricultural press is causing such an increased interest to be taken in farming operations in this country. In the first place, the farm journal has elevated the farmer's calling to an honorable position, and made it more respected. It has clothed it with the dignity of a science, and thus will soon make it the most delightful pursuit that man can engage in. By increasing the amount of independance and competency among that class which is sometimes called the "bone and sinew of the country,' by adding to the intellectual enjoyments of country life, and promoting the moral virtues—by all these, has the agricultural journal produced a greater amount of practical, worldly good than any other class of journals published.

From what has been remarked above, it is easily inferred that the farmer should write for the farmer's paper. But more particular reasons may be given why he should do so. One of the best is, that the intelligent farmer knows better what to write than the mere theorist. The agricultural community will have more confidence in a paper liberally supported by the writings of farmers, simply because it will be supposed they have the best means of knowing what they write about. Such a belief will cause the agricultural paper to circulate more extensively through the country, and therefore will do more good. Farmers are sometimes slow to adopt new plans on farming—too much in that extreme—and they are the more so if the new idea or theory does not proceed from the experience of a practical man of their own craft.

The farmer should labor to elevate and honor his calling; and hence, if he can therein impart any item of beneficial knowledge, it becomes his duty to do so. Let no selfish view ever induce him to withold what would assist his "fellow lords of the soil." He should remember that it is a principle in political economy that "a benefit to one is a benefit to all." Let him then write for his own paper—write frequently and carefully—avoiding every thing not properly authenticated by evidence carried far enough, calculated to lead astray. He can also suggest, he can make inquiries, and he can even speculate on some subjects, but they should be known as speculations.

And thus, in these various ways, reciprocal benefits will be received; and he will be adding something to the common stock of that agricultural knowledge which will tend to push forward the high avocation of the farmer near and more near its goal of perfection.

P. P.

Mountain Home, Va.

THE BEST MEANS OF DESTROYING WEEDS.

Plow deep, about the last week in May, or earlier, if you can; harrow until the surface is fine and smooth; then use the cultivator frequently and thoroughly, till the 1st of July; cross-plow and sow buck-wheat, (well rolled in plaster.) One half a bushel to the acre is sufficient if the land is in proper condition. Plow again the following spring, after a liberal application of barn yard manure. Sow with oats and seed down with an early variety of clover, (commonly called the Medium Clover, among us.) If your weeds withstand this treatment, they must be more tenacious of life than any we have to deal with, namely, Canada Thistles, White Daisy, Wild Peas, &c. If, however, they are not all killed, the kind of clover referred to will require mowing before they have matured their seeds. I have tested this

remedy to my entire satisfaction, and never had occasion to repeat the cropping to accomplish my purpose; but to provide against any possible failure of this treatment, mow the clover two years in succession, and then crop again with Buckwheat and Oats, as before, not forgetting the manure if the soil requires it. By this means you produce paying crops without injury to the land, and destroy the weeds at the same time. M. G.

Middleburgh, N. Y.

LIME AS A MANURE.

I have used lime as a manure in various ways.—For low land the best way is to sprinkle it broad-cast while the vegetation is in a green state, at the rate of forty or fifty bushels to the acre; but if I cannot use it before the frost kills the vegetation, I wait until the land is plowed in the spring, when I sprinkle it on the plowed ground, in about the same quantity as before. Last year I tried it both ways, and the result was my crop was increased at least four fold in each instance, but that used on the vegetation was best;—the soil a low black sand. W.

Laurel, Delaware.

IS THE CULTIVATION OF FRUIT ON A MORE EXTENDED SCALE DESIRABLE?

At the present time, apples in this city, are worth from one dollar to one dollar and twenty five cents per bushel; in Chicago they readily command from seven to eight dollars per barrel; in New York from three to five dollars per barrel, and in the greater part of Canada they cannot be had at any price, and undoubtedly the same is true of very many localities throughout the Union, without referring to the new States at the west, which comparatively speaking, are entirely destitute of fruit, except such as is indigenous. In localities where there is a tolerable supply, it is usually of the very poorest kinds, grown on seedling trees, and such as no one who has been in the habit of using good fruit would deign to touch. Peaches, during the last ten years have averaged a dollar per basket, (three pecks) in this market; in the plentiest seasons the price of good peaches has not been less than fifty cents a basket, and that only for a few days when there was the largest quantity in the market, and both at the commencement and at the close of those seasons they have commanded from one dollar and fifty cents to three dollars per basket. In the fall of 1855, when the prices of peaches in this city went down to seventy-five cents and fifty cents per basket, an extensive fruit grower in this section contracted his entire crop in the city of Buffalo for one dollar and sixty-two and a half cents, and at the different ports in the Canadas, they brought from two dollars to two dollars and fifty cents. At that time an experienced and intelligent orchardist, affirmed that the large crop he then had, with the low prices, was full as profitable as the smaller crops with higher prices, as often was the case.

Last fall Catawba and Isabella grapes sold in the Chicago market, at fifty cents per pound; in Toronto, Kingston, Montreal, &c., at twenty-five and thirty cents; in New York from fifteen to twenty cents; while at three or four cents a pound, no crop can be more remunerative than these.

To pears we need scarcely allude; the sight of a good pear is of such seldom occurrence, that when it does happen, we gaze with a sort of strange curiosity, as to its origin and qualities and its precise relation to other members of the pomological family. The prices at which pears sell, are almost fabulous; from five to ten dollars a bushel, and often more, according to quality, being common prices for good fruit. Ten cents is a common retail price for a good pear in this city, and in New York or Boston they go current at twenty-five cents, *American coin*; while, in Chicago a first rate article is sold, two for a dollar.

At the late meeting of the Fruit Growers' Association of Western New York, Mr. Flower of Syracuse, stated that a gentleman near that city had sold eight hundred dollars worth of grapes from half an acre of ground. Mr. Ainsworth, of Bloomfield, stated that he had cultivated the grape pretty largely and with entire success; that he got a fair crop the third year after planting, and that at present prices the cultivator can depend upon from $500 to $800 per acre profit. Mr. Hoque remarked that there could be no question about making pear culture pay; a tree in his vicinity bore forty bushels last season, and another belonging to his brother, bore twenty bushels, which were sold at two dollars per bushel; it was an inferior variety. In his address before the American Pomological Society, held in this city last September, the President, the Hon. Marshall, P. Wilder, says: "A gentleman in the eastern part of Massachusetts planted in the years 1848 and 1849, as many dwarf pear trees as he could set on an acre of land, at the distance of eight by twelve feet, and between these rows he planted quince bushes. In the fifth year from planting, he gathered one hundred and twenty bushels of pears, and sixty bushels of quinces. Of the former, he sold seventy bushels at five to six dollars per bushel; and he now informes me that he has lost only three per cent. of the original trees, and that the remainder are in healthful condition."

Most persons will, no doubt, consider these statements slightly exaggerated, but if they will take the trouble to make the proper inquiry, they can verify them for themselves. Without mentioning other varieties of fruit which, under certain circumstances, are not less worthy the attention of the cultivator, we cannot but conclude from the above facts, that the cultivation of no crops, in a pecuniary point of view, can be more desirable than our hardy fruit.

Many object to planting orchards because it is so long, they say, before anything can be realized that they are discouraged from making the attempt, and they thus pass a life time, long enough to bring into bearing a dozen orchards, without raising enough fruit to supply their own families, or even themselves. Again, for many years past, there has been in the minds of many a fear that the markets would be overstocked with fruit, but we certainly have not yet arrived at that point, and from all indications are further from it now than we were ten years ago; prices of all kinds of fruit run higher now than then; the demand has multiplied in a more rapid ratio than the supply: the increased circulation of agricultural and horticultural literature, and the establishment, all over the country, of societies for the exhibition of fruit, and other farm and garden products, has created a discriminating and appreciative taste in the public mind for good fruit; a barrel of Northern Spy, or Norton's Melon Apple, will sell as quick as offered in the market at five dollars, while, a few years ago, when an apple was an apple and nothing more, it would bring scarcely more than one of common fruit.

Too large a proportion of the fruit now grown, is such as quickly decays, and is, consequently, rushed into the market, reducing the prices, and not giving as satisfactory results to the cultivator, as would accrue from an orchard of suitably selected varieties. Many of the best sorts of apples and pears now grown may be kept until April and fully retain their flavor, in fact, some varieties are not in perfection until that time; the Pomme Grise and Russets we all know can be kept until harvest apples are ripe, yet after the first of January, in the greatest fruit growing vicinities, the supply of apples begins to fail, and by the first of April, they are nearly or quite out of the market. Those making new plantations should look to this point, and make such a selection of varieties as would enable them to have a constant supply the year round, and they will find it greatly to their advantage.

The cultivation of the smaller fruits, raspberries, strawberries, currants, gooseberries, &c., is very generally neglected, and almost entirely, I must say, through carelessness; where is the locality in the United States, or the Canadas, where, with the exception of goosberries, they may not be grown in perfection, and that with little labor or time bestowed upon them. Yet, how many of our farming population have only enough of these fruits, to make them long for more, without the possibility being supplied, and how many more never taste them for years. By some, to grow a strawberry is considered an incomprehensible horticultural feat, while if they would only try their hands at it, they would find it a little easier than raising potatoes.

It seems unnecessary, at this time, to refer to the wholesomeness of ripe fruit, as an article of diet; we all know how necessary it is to a healthy, and regular condition of the physical system, especially in the warm season. Other cogent reasons may be urged for a more general attention to fruit culture; as food for stock, apples deserve more attention than they have yet received, and when their value is more widely known they will be largely used for this purpose.—Let farmers and others then, plant more trees and cultivate them well; they must be fed if you would have them feed you; plant none but the best varieties and such as you know are well adapted to your particular locality, and you will have the satisfaction of seeing your orchards bending with beautiful fruit, and feeling your pockets heavier for your enterprise.

Rochester, N. Y. PYRUS.

WHY DO FARMERS SO GENERALLY NEGLECT THEIR GARDENS? AND THE BEST MEANS OF RECTIFYING THE EVIL.

Why do farmers so generally neglect their gardens? No particular answer would, in all cases reply to this question, and there are several reasons that are prominent in my mind. With some, I think it is an inordinate thirst for worldly gain; they are in haste to become rich; gold glistens in their eyes, and as the garden brings but little of it to their coffers, (unless they live near a market, where garden products find a ready sale,) they deem its cultivation beneath their notice. They consider the time thus spent wasted, and can even sneer at their neighbor, who devotes time and attention to his garden. They relish the luxuries derived from this source, as well as other men. And those who will scarcely raise a hill of beans, or cucumbers, will devour with gusto the luxuries of the garden, when provided by others; and will suffer their children even to make depredations upon their neighbors' premises, with impunity.

Another cause often is, want of system in their business operations. They do not consider the work of the garden as coming within the routine of their daily labor; no provision is made for this, in their plan of operations, if indeed they have any plan, but consider it a work to engage their leisure moments, when no other business presses. But leisure moments with the thorough farmer are few, and when his business is not planned and executed systematically, it is generally thrown into confusion. One thing crowds upon another, and in the hurry and bustle, the garden is neglected. It may be planted, perhaps in the spring, but its cultivation is neglected, until the weeds and grass overrun the vegetables. A few spasmodic efforts are made to subdue them, when he gives up, and concludes, as Farmer Slapdash does respecting fruit culture, that gardening is a humbug.

Indolence is often a cause, why men neglect their gardens. The process of weeding onions, or carrots, or flower beds, is too toilsome. It is more congenial to their feelings to spend their time in lounging in the shade, in conning over the newspaper, or in idle gossip, with their neighbor. Again the labour is on too small a scale to suit their dignity; if their wife or children will do the labour, they will readily enjoy the luxuries obtained by them, but cannot soil their own hands with the dirty work.

The want of a refined rural taste, is another reason why horticulture is neglected. Some men have but little appreciation of the beauties of nature or art; a lovely landscape has no charms for them, and a garden neatly laid out, and properly cultivated, possesses but little more attraction than a patch of Canada thistles, or dwarf elders; they despise it, as well as the neat gravel walk, bordered with shrubbery and flowers; they often look with pity and contempt upon the man who engages in such business; they can eat and drink, and sleep, they say, as well without them, and so can the swine that would render such a scene, all deformity and desolation, could they gain access to it. Such I deem some of the principal reasons why gardening is so much neglected.

The cause of the evil being pointed out, the remedy is readily suggested. Whatever will tend to counteract this thirst for wealth, and lead men rightly to appreciate the great object of existence, will lead them to act in accordance with its design, and to acquire and enjoy the blessings a wise Providence has placed within their reach. In order also to prosper in all our affairs, business must be planned and executed systematically. The garden must be included in the plan of farm operations; time must be set apart for its cultivation, as well as for planting and hoeing corn, or sowing wheat, and the cultivation must be done as thoroughly. No part of the farm pays better when properly cared for, than the garden; it may not afford as many dollars perhaps as other crops, but it affords much that renders a family comfortable, and this is of more importance than to horde money for posterity to quarrel about.

A more general dissemination of intelligence among the farming population, particularly intelligence respecting agriculture and horticulture, would tend to remedy this evil; the man of intelligence is more generally a man of refined taste, and seeks to have things comfortable and pleasant around him; this knowledge

may be spread by the circulation of well managed agricultural papers, and every man who desires improvement in this respect, should lend his influence in circulating such works, especially among the rising generation; children should be early led to notice and admire the beautiful, and also to acquire a taste for gardening. Impressions may be made in childhood, that will be lasting as life, and that cannot be easily counteracted by habits and dispositions acquired in later years. A taste may thus be formed that will lead to practical results, and prove a blessing to community. HUBERT.

ON DRYING APPLES, PEACHES, PLUMS AND OTHER FRUIT.

AMONG the good things which can not be considered merely as luxuries, but which our habits, if not our natures, have rendered necessary to a high degree of health, fruit is not unimportant. The art of preserving it by drying, may to some persons appear too simple to require the explanation of any process; nevertheless few housekeepers are so well skilled in these matters, that they may not learn something of value and interest, by the experience and practices of others.

Fruit, of different kinds, evidently requires different treatment. Apples should be pared, and those of medium size cut in eight or ten pieces, and dried quickly, by the fire; cutting them finer makes more surface to be rinsed, and the more water that is used for this purpose, the more is the flavor washed away.

Peaches may be dried in a similar manner. Pears and gooseberries, (the latter before they are very ripe,) are better stewed tender in one fifth their weight of sugar and a little water, and dried after the liquor is boiled thick and poured over them. Cherries should be stoned and scalded in their own juice, without sugar, and dried slowly. The method of drying plums in the sun after opening and stoning them, without scalding or sugar, probably cannot be surpassed.—Strawberries, raspberries and currants, retain most of their original flavor when mashed with one-fourth or one-fifth their weight of sugar, and dried as quickly as possible without scalding them. Pumpkin should be stewed till quite dry, sifted and spread on buttered plates, and when partially dried, broken fine, that it may soak quickly in milk when wanted for use.

Ganesvoorts, Saratoga Co., N. Y. H. M. D.

WHAT CAN MOTHERS AND DAUGHTERS DO TO MAKE FARM LIFE ATTRACTIVE TO THEIR SONS AND BROTHERS, AND PREVENT THEM FROM LEAVING THE FARM TO ENGAGE IN MERCANTILE OR PROFESSIONAL PURSUITS?

LABOR is not exactly like virtue, "its own reward;" and where can a farmer enjoy the fruits of his labors except in a happy, well ordered home.—*There* he should find himself surrounded by those best of all ornaments, cheerful human faces. There is seldom a farm so small and poor, but these may be *cultivated* with great success, if woman could only be made to feel the great necessity and duty of it. In order to attach young men to farm life, mothers and sisters should first of all love it themselves: as it is always impossible to inculcate a sentiment we do not ourselves feel. If a young man sees his mother and sisters pining for city or village life, lamenting the want of opportunities for display, despairing, instead of developing the recources within their reach, he will certainly feel the spirit to be very infectious.

Cheerfulness, order, and cleanliness, go far towards making home happy, and let there be added to these a well spread table. Mr. GREELY was more than half right lately in his severe comments on country cooking; I hope it has provoked an agitation of the subject which will be useful. The stereotyped dish of baked beans is well enough, also the boiled dinner, but variety is not studied; day after day brings the same dishes upon the table, till the appetite is cloyed; an agreeable surprise is never thought of, and any thing new seldom attempted. Many young ladies seem to think indifferance in regard to food is a mark of refinement; I shall caution my boys to avoid such young ladies. Farmers' daughters, I have generally observed, have greater advantages for improvement, and are apt to possess more refined tastes than their brothers. Let me beg of them to exert their influence in elevating the character and manners of the young farmers. "O! don't come into the parlor boys, with your dirty boots! you have been among the horses, don't come so near!" I have heard such things said; and seen young men actually driven from the companionship of their sisters, and made to feel that their occupation rendered them disgusting to them and their young friends. It is easy to imagine the consequences likely to arise. I know young farmers, whose slippers are always at hand when their work is done, whose cotton overalls and frocks are easily slipped off, and they are in as fit condition to enjoy a book or pleasant conversation, as a lawyer from his office. Personal appearance has a very great influence upon manners; when a young man feels conscious that he looks like a gentleman, he is much more likely to endeavor to merit the name of one The work of a farm is fatiguing, while the mind is in a measure unemployed; consequently, the appliances for finding relaxation, and mental activity should always be at hand. A well lighted table, with books and papers, presents an agreeable inducement to spend an evening profitably. There is perhaps no class of men, to whom a love of reading is more essential than to farmers. Vacuity of mind is an intolerable evil; it is frequently the enemy from which men fly when they rush into dissipation. The uneasiness it engenders, is frequently mistaken by farmers' boys for a taste of other pursuits, and the true comforts and independence of a farmer's life is forsaken for all the uncertainties of a profession.

Mothers and sisters can do much in forming a love of reading, by reading aloud to boys before they have sufficient scholarship to enjoy a book by themselves. Time would be much better spent in this manner than in embroidery and crochet work, which adds nothing to the comfort of the family. They are pursuits eminently selfish, and there are few farmers' girls who can afford the time for them. Rural life loses half its attractions when there are no out of door embelishments, no shrubbery, no flowers, and only the coarser vegetables in the gardens. The apology is often made for the lack of every thing beautiful about the house, that "our boys don't care for such things, they wont do anything about the yard and garden." Now, the

fact is, "our boys," have no time to do it; they work hard enough without, and though they would be willing to lend a spare moment, they will not do it all, or even commence it.

It is an appropriate employment for woman, even if they have considerable housework to do, they would find the change of employment very beneficial to both mind and body, and after working out of doors an hour or two, they would not be half so apt to ask the tired boy to bring their wood or water, as they would after sitting the same time, diligently employed on some useless needle work. While the men of a family, labor for the general good, in providing the necessaries and comforts of life, women should also labor for its embellishment, not only preserving their own beauty, but making everything about their home beautiful and attractive. There is no fear but the men would appreciate the improvement, let it be ever so small, and every sacrifice of merely selfish pleasures would meet an abundant reward.

A MOTHER.

IS IT RIGHT TO ASK THE WOMEN FOLKS TO DO THE MILKING DURING THE BUSY SEASON?*

UNDOUBTEDLY it is; but it is not always safe to do it. It is not only right, but very reasonable to make such a request of your wife, or daughter,—certainly in a busy time of the year, and one cannot very well ask it at any other time, in this section, for let him do it under any circumstances, and ever so meekly, he will have a busy season, and a very warm one too, right away. The subject is "open to both sexes," and my wife already—for I am a married man, of course—is quite prepared to show the impropriety of the whole thing, and wishes to write out an argument at length, but is prevented from doing so, because she is confined to a single page in the *Genesee Farmer*, and if she once begins to talk it up, she wont get through till after the "cows have come," and it would not be decided who should milk them. When we say it is right for the women to sometimes milk the cows, and are told by them that it is highly improper, we still feel it to be right, without going into an argument to prove it if we could, and are like the small boy, who, when he was one day asked by the minister who was visiting at his father's house, if he could tell him how many were two times two, replied that it made four. But the parson wanted it explained, and asked him how he knew it was so. The boy said he *did* know it, and that was enough. Still the good man insisted upon an explanation, or a reason for it, when the boy, out of patience, said pretty sharply, "Because I *do* know it, and so do you, you d—l—h old fool. You only want to talk to hear yourself talk." Whether the women talk against milking to hear themselves talk or not is of no consequence, so long as they are unwilling to perform so reasonable a task—if it is not a duty.

More seriously, and with all reason, let us show the justness of our cause. We have in view just now, the man in haying or harvest time—the busy season, if ever—going forth to the field at the earliest dawn of the morning, to return only at the approach of night, to find ten, twenty or thirty cows—in this dairying country—to be milked, ready and lowing at his very door; he, wearied by the heavy labors of a mid-summer's day, and just asking for a little assistance about milking, finds his wife busy with company, his girls enjoying themselves about the house, and not one of them so much as giving so interesting a subject a single thought, and every one of them afraid of their shadows, made in the milking yard, if they should by accident get in there. O, for the good old times when our daughters were wont to go forth morning and evening, with flushed and rosy cheeks, through the pastures and green meadows, mid daisies and many other beautiful flowers, and with soft and willing hands, almost charming the milk into the neat milk pails!

But after all we can say, I rather expect the women will have their own way, and I will close by relating an incident that came under my own observation, by which the cows themselves are shown to be sometimes qualified to decide the question.

Many years ago, we owned a cow—the brindle cow—that by some means got in the habit of being milked by the women, and by the women folks alone. But after a while, when sewing, quilting, missionary and many other societies began to come into fashion, the women would sometimes be gone, and at such times old "Brin" would have to go without milking. But after a while longer, as the men could not get near her, and the women would be gone oftener and oftener, we thought to try an experiment; an older brother went and put on an entire suit, for all the world like a woman's dress, and it was nothing else, and proceeded to milking this truly woman's cow, but it would not all do, for old "Brin," who, at first did not discover the fraud, as soon as the man in disguise began his milking operations, gave a sudden start, and with a still more sudden kick, sent our humble imitator of female fashions almost half way across the yard, with the milk-pail, milk, and all mixed up with this novel attire from head to foot.

This story will finish the subject, and your humble servant will now wait with some interest to see who will get the dollar book. E. A. B.—*Oxford, N. Y.*

IS IT RIGHT TO ASK THE WOMEN FOLKS TO MILK THE COWS DURING THE BUSY SEASON?

WE answer no. The province of female superintendency, is bounded, as we conceive, by the line which separates the inside from the outside of a farm-house; and in this position, the labor of woman is bounded by the same line. Appropriate labor is a duty no less imperious in its claims on the woman, than on the man; but upon each in their proper sphere. The attentive, economical, and industrious wife, fulfilling best her design,—a help-meet,—so highly commended by the wise man, in the great directory of human life, is not commended for clearing away the forest, splitting rails, and erecting buildings, thus converting the wilderness into rich pasture and meadows, that she might have an opportunity of keeping many cows, and milking them with her own hands, and so bless the world. No, she performs her work, and establishes her reputation inside the line. But the question is, "Is it right to ask the women folks to milk the cows during the busy

* We have received a great number of answers to this question. After much hesitation, we have selected out two, one in favor of the practice and the other against it, and award a premium of a dollar book to each of them. We shall endeavor to make room next month for some portions of the other essays on this subject, all of which are very good—especially those written by the ladies. It may be worthy of remark that nearly all the ladies who have written take the affirmative side of the question.—ED.

season?" Say in seed time, and in harvest. Well, here lies the principle alongside the answer to the following question. Is it right to violate the Sabbath in haying time, and in harvest? We answer no. The prohibition is found in that same great directory; and written there for the good of all. Vary the question a little, and say the Sabbath is the only sunny day in the seven. Then what? Why, then, it is also our duty to obey, since there is no proviso, for such an emergency. Just so in respect to asking the women to milk the cows because the appropriate work of the man demands his special attention. The question implies that this work does not properly belong to the woman. And if so, then it is right that she should not do it. Not being accustomed to milking, she is both awkward and timid, and should never either for man's ease or convenience be asked to approach the equally timid cow, and thus endanger the welfare of both. The principle that would prompt us to ask the women folks to milk the cows in the busy season, would oblige them to milk them, if the weather should be very stormy, or extremely cold. Shame on the man that ASKS a woman to milk the cows. If she *wishes* to milk, under certain circumstances, let her,—this does not belong to the question. D. S. Wood.—*Saline, Mich.*

IS A RESIDENCE IN THE COUNTRY OR CITY MOST CONDUCIVE TO HIGH MENTAL CULTURE, BEAUTY OF PERSON, HEALTH, HAPPINESS AND USEFULNESS?

To determine this question, it will be necessary to examine the advantages, and disadvantages, which each locality offers, and form a comparison between them. A residence in the city allows us a better opportunity of attending scientific and literary lectures, and of access to extensive and valuable libraries; but compare these privileges, valuable as they are, with the bad and unwholsome influences by which one is constantly surrounded in the city, and I fear that the argument would be little in its favor. Novels, the theatre, parties, and a thousand other pleasures, would be apt to draw the inclination with a stronger cord than solid literary works, and the consideration of the vice and wickedness into which one is in danger of being drawn is enough to cause every one who would wish to become a scholar to seek the country.

Now, what can be found in the country to debar any from possesing a highly cultivated mind? To be sure he cannot always hear the gifted discourse from the lips of the orator, but he can read it. In this age of progression, any kind of documents can be received, from every part of the country in a few days. So this may be considered as little or no detriment in obtaining information of this character. It is also the same in regard to books; anything published can be procured with little trouble, and at a cheapness which need not prevent the poorest from possesing it. So to the political affairs of the world, newspapers, and periodicals can furnish the resident of the country all these as cheaply as the denizen of the city.

Some may say, that if there are so many superior advantages in the country, why are not our farmers better educated? In reply, we would say, it is because in a majority of cases, the moment a youth has finished a course of studies, (and often sooner,) he despises the, so thought, degrading labor of the farm, he must study a profession; he must no longer be seen using the plow or scythe. Do you wander then why farmers do not place a higher estimate upon education? but the farmers of the present day are beginning to see the true dignity of their profession, beginning to know the results of thorough scientific farming, and their sons are seeing it too. They are discovering that they can use their education in improving the soil, and in making known the results of their experience through agricultural journals, instead of compounding medicine, or studying law.

We are sure, that as a general thing, the real personal beauty to be found in the city, is not equal to that of our rustic country youths; rosy cheeks, bright eyes, plenty of exercise, and an abundance of good humor and happiness, will give a glow to the cheek, which all the rouge in the world cannot imitate.

It is almost unnecessary to speak of health as regards the country, or city. Every argument that can be advanced, is decidedly in favor of the country; there you breathe the pure, fresh air of heaven, which invigorates your constitution, giving to every member of your body, new life and energy. You do not inhale the smoky, dusty air, which is necessarily present in the city. Compare the rosy cheeked country boy, his muscles strong and firm from constant exercise; his step elastic and quick; his eyes radient with joy, with the pale, sickly youth who inhabits the city, and you will easily discern the difference between the two localities, in reference to health.

Happiness! The object of all men's pursuit! Where shall we be most sure to gain it, if not among the lovely and beautiful works of an all wise Creator. The ambitious and aspiring seek the wild and picturesque scenery of Switzerland, climbing the rugged steeps of Mount Blanc, or sail over the still, placid waters of Lake Geneva, or again turn their steps towards the vine-clad hills of France, or the well known mountains of rustic Scotland to enjoy the grand and beautiful scenes presented by nature. The quiet and unaspiring, seek the retirement of a country home, away from the noisy bustling thoroughfares, and there reach the desired goal. They do not seek the crowded streets of the city, where man lives in unsocial intercourse with man, where the people of one square know nothing of those of another.

Go, then dear friends to the country, if you wish to find happiness—that priceless boon; there man is joined to man by the tenderest ties that bind the human family together, sympathising in affliction, rejoicing in prosperity, and in the enjoyment of each other's society, they peacefully close their eyes in death, surrounded by warm hearted friends. A celebrated writer has said truly, "If a man would eat, drink, and be forgotten, let his dwelling place be in the city; if he would live, love and be remembered, let him speed to the glens of the mountains."

There is no good reason, why the people of the country cannot be as useful to their fellow men as those, who reside in the city. The farmer can give of his "substance" to the needy and destitute of the large cities, and when he beholds his well filled barns, and granaries, he can

"Remember the poor
When it bitterly bloweth,
And fearfully snoweth."

Yes, he can render his name memorable for his good deeds, and his exemplary life. E. A. H.

Horticultural Department.

ANNUAL MEETING OF THE WESTERN NEW YORK FRUIT-GROWERS' ASSOCIATION.

[Continued from last number.]

Mr. J. B. Johnson said Mr. McKay had 1¼ acres of grapes, one acre of which had been set out but recently. He sold the crop this year for $1200.—The vines were one rod apart each way, making 160 per acre. At the time they were planted he placed a large quantity of the carcasses of animals under the vines. His grapes ripened perfectly and became quite black. The soil was gravely with a clay subsoil, situated in a valley with a warm exposure. Attributed much of his success to close pruning.

Mr. Flower, of Onondaga Co., said grapes were raised very easily around Syracuse. One gentleman had sold the produce from half an acre for $800—Had known the fruit on one vine to sell for $12. Cultivated the Isabella principally. The Catawba did not always ripen well.

Mr. Ainsworth, of Bloomfield, said Mr. McKay pruned very closely both summer and winter, and thus exposed the sun to the light and air. In reply to an observation, he said the leaves should not be cut off. He, Mr. A., cultivated grapes pretty extensively; thought from $500 to $800 per acre might be depended on. He trained his vines on trellis from five to six feet in height; had always found the grapes better near the ground than high up; the best grapes were found about half way up the trellis. His vines were planted seven feet one way and fifteen feet the other. The first year he allowed two vines to run in opposite directions horizontally under the trellis. In the spring cut them back to within two buds and when they broke he pinched off one of them, throwing all the force into one vine, which he trained perpendicularly. Pruned generally two or three times more during the summer, keeping off all extra vines, but allowing plenty of leaves to elaborate the sap for the fruit. In November of each year he cut away nearly all the old wood. People generally do not prune enough; they allow too many useless vines to grow, which exhaust the plant. The ground should not be cropped, but should be thoroughly cultivated once a week. The manure should be put on in the fall and plowed in in the spring. Deep culture was desirable. He obtained from two to three bushels of grapes from each vine.

Mr. H. E. Hooker thought a sheltered location absolutely necessary. He had never seen a ripe grape which grew in an exposed situation; shelter was necessary in the winter and spring.

Col. Hodge thought that high manuring, especially with carcasses, was more necessary than with any other crop. A friend of his kept a slaughter house, and every year he opened the ground around his vines and poured in a quantity of blood, and found more benefit from it than from any amount of barn-yard manure.

TOP GRAFTING OLD ORCHARDS.

Col. Hodge, of Buffalo, said that if the trees were old, far advanced in life, and had commenced decay, he would by all means cut them down. But if they were young and vigorous, he would graft them. A friend of his had an orchard—some of the trees were old and mossy, many of them had commenced decaying and the fruit was gnarled and poor. An itinerant grafter came and grafted them, using his own grafts, and setting many of them twenty feet above the ground. In a few years, when the grafts grew, his trees looked so bad and ill-shapen that he became discouraged and cut them down. He dug up the stumps, thoroughly broke up the ground, manured it and planted out a young orchard, and, in a few years obtained a fine orchard of handsome trees. In 1848 a neighbor of his planted 100 apple trees; a year ago last fall, he picked from the orchard 127 barrels.—Some of the Baldwin trees yielded three barrels to the tree.

Mr. Luther Barber, of East Bloomfield, had followed top grafting extensively for more than twenty years. Soon after he commenced grafting, he adopted a different method from the one in general use, and his experience fully confirmed him in the belief that it was by far the best. It was to saw off the limbs of the trees low down—no matter if they were six or eight or ten inches in diameter, and then insert a row of grafts around the limb about an inch apart. *This should be done early in the spring before the sap starts at all*, or it will not succeed as well. He did not saw off all the top the first year, but left a portion to help sustain the tree for a year or two. Of the grafts which were put in thick, a few of them soon took the lead and made the future top of the tree. One great advantage of inserting so many is, that it keeps the whole limb alive and does not form any dead spots on the sides of the limbs. These grafts, by getting the whole force of the tree, grew rapidly and very soon formed a good top. He had known three barrels of apples to be picked from trees so grafted in three years grafting. He had never experienced any ill results from this method, or discovered that it injured the tree in the least. He ought to say, however, that he always used kinds which grow rapidly in preference to the slower growing sorts, as they supplied a top much sooner. He found it always revived an old orchard to put a flourishing young top on it. He had known trees grafted in this manner, to bear good crops of apples for twenty-five years past. He once saved a pear tree which had apparently been killed by the fire blight, by sawing it off below the disease, and putting in several grafts—the tree revived and lived a long time. He sometimes cut his stocks during the winter, and grafted them early in the spring, before the snow went off.

Mr. H. E. Hooker, of Rochester, said that in his father's garden a pear tree was struck with the blight—seeing no other way of saving it, he sawed off the trunk, some five or six inches in diameter, and insert-

of several Bartlett grafts, which grew and made a good top. But he would not follow the plan in apple orchards unless the trees were very thrifty. Another method is to bud the sprouts which are thrown up around the larger limbs, which soon make good tops. The great difficulty in top grafting old trees, was that it always made more or less unsound and rotten wood where the limbs were cut off.

Mr. B. Fish, of Rochester, thought there could be no general rule for grafting old trees—if they were young, and had been properly pruned, there would be no difficulty; if they were old and diseased, he would not do it. There was one other consideration,—after the first three or four years, the young trees were growing better each year, while the old trees were growing worse continually.

Mr. Maxwell, said there were a number of old apple trees near Geneva, planted in the olden time, by the Indians. As the story goes, these trees were cut down by Gen. Sullivan, on his expedition to drive the Indians from this section of the country. They show signs of having been cut down, as many of them have two trunks. These trees were grafted fifteen years since, and are now bearing profitable crops of fruit.

Mr. Barry thought the method adopted by Mr. Barber was a good one, and perfectly consistent with the laws of vegetable physiology. Still he would not advise persons to re-graft old trees that had commenced to decay, except in special cases, as for instance when a person takes possession of a farm destitute of fruit, if there were a few old apple trees on the premises he would re-graft them, as good fruit could be obtained in this way earlier than by planting out new trees.

WINTER PEARS.

Mr. Barry being called upon, remarked that the cultivation of Winter Pears eminently deserved the attention of the farmers of Western New York.—They could be grown as easily as Autumn Pears.—Formerly he was of the opinion that there was great difficulty in ripening them, but latterly he had found that they could be kept and ripened nearly as well as apples. The great point was to get well grown, *fully matured* fruit. It was impossible to ripen imperfectly matured specimens. Last autumn *they packed their pears in barrels, in the same manner as they did their apples, and they kept and ripened up beautifully.* People were now going into the cultivation of the Lawrence quite largely; he thought this somewhat a mistake; the Lawrence, although a very fine pear, ripened about Christmas. He thought a succession of winter pears which would ripen throughout the winter, much preferable; among other fine kinds he would recommend the Winter Nelis and the Easter Beurre. They had fine specimens of the Easter Beurre on exhibition, which had received only the treatment of apples.

Col. Hodge apprehended that the principle difficulty in the cultivation of winter pears, was in not selecting good varieties. Many kinds were fine flavored but poor bearers. He now only cultivated a few kinds, which were the Vicar of Winkfield, Easter Beurre, Lawrence, Glout Morceau, and Winter Nelis. He had no doubt that they might be made a very profitable article of cultivation, and that he practiced what he preached. But to succeed we must cultivate the ground thoroughly—as well as we would corn or potatoes.

Mr. Barry thought that we of Western New York had unusual facilities for raising Winter Pears, for our numerous railways afforded the best markets with ease. There was no difficulty in packing them for market. He would add that *winter pears are not so good on young trees as on old ones;* for instance, the Glout Morceau did not bear perfect specimens, even on the quince, till eight or ten years old.

Mr. H. E. Hooker agreed with Mr. Barry in the statement that it was absolutely necessary to have large and good specimens to succeed in ripening them. He thought that we were not, as yet, prepared to recommend a list of varieties to farmers. He was cultivating the Lawrence and Winter Nelis. He thought a very general knowledge of fruits would be absolutely necessary before we of Monroe County could hope to succeed perfectly in the cultivation of Winter Pears and other fruit.

There was some desultory remarks in regard to the cultivation of pears on the quince stock. Mr. R. R. Scott remarked that the bulk of the fine pears exhibited at the different Agricultural and Horticultural Fairs, and which were so generally admired were grown on the quince, and the greater proportion of pears which found their way to market from this section, were grown on dwarf trees.

Col. Hodge said that several kinds of pears succeeded well on quince—for instance the Glout Morceau an Louise Bonne of Jersey. But we have been trying to raise too many kinds, many of which will after a few years dwindle out and die. The proper kinds on the quince for garden culture will do well, but he thought that the pear on its own stock would be the kind to be principally depended upon.

THE EUROPEAN LINDEN.

The best botanical authorities divide the genus Tilia of the natural order Tiliaceæ into two species, *Tilia Europea* or the common Lime tree, or Linden, and *Tilia Americana*, or the common American basswood tree. We annex a beautiful cut of the former species. The American Basswood is of a more robust habit, with larger leaves than the European tree. The latter is much more fragrant than our common Basswood, and makes a very fine pyramidal tree. There are several beautiful specimens growing in this vicinity, and there is no tree that is more suitable for planting along the streets in cities, the heat reflected from the pavements and buildings increasing the fragrance of the blossoms. It is a rapid growing, vigorous, pliant, well balanced tree, with a great number of lateral branches of an easy and graceful habit. It likes a rich, sheltered soil, and should not be planted on dry, poor soils in exposed situations. It is better adapted for avenues, than almost any other tree.

The Linden was known to the Greeks and Romans. Theophrastus states that the leaves are sweet, and used as fodder for most kinds of cattle. It was highly esteemed by the Romans as a shade tree, and for the numerous uses to which its wood might be applied. Evelyn commends the Linden for its "unparalleled beauty" for walks, and because "it will grow in almost all grounds, lasts long, soon heals its wounds when pruned, affects uprightness, stoutly resists a storm, and seldom becomes hollow." He alludes to the large trees "at Basil and that at

THE EUROPEAN LINDEN.

Augsburg, under whose shade they often feast and celebrate their weddings; because they are all noted for their reverend antiquity; that at Basil branching out one hundred paces in diameter from a stem of about twenty feet in circle, under which the German emperors have sometimes eaten; and to such trees, it seems, they paid divine honors, as the nearest emblems of eternity." At Neustadt in Wirtemburg, there is a prodigious Linden tree.—It is said by EVELYN to have had, in his time, a trunk above twenty-seven feet in circumference, and the diameter of the space covered by its branches to have been 403 feet. It was "set about with divers columns and monuments of stone (82 in number, and formerly above 100 more,) which several princes and noble persons have adorned, and which, as so many pillars, serve alike to support the umbrageous and venerable boughs." He adds copies of many of the inscriptions on the columns, the oldest of which is dated 1550; and the column on which it is inscribed supports one of the largest limbs, at a considerable distance from the tree, which must have been of enormous size over three hundred years ago. In the wars which have desolated the country since the time of EVELYN, this tree suffered severely, but it is still in existence.

The name LINNÆUS, the great Swedish botanist, is taken from an ancient Linden tree, of great magnitude, which grew near his dwelling, *linn* being the Swedish name of the lime tree, or linden.

Honey produced by the linden blossoms, is considered superior to all other kinds for its delicacy.

"The bee
Sits on the bloom, extracting liquid sweets deliciously."

Who that has seen noble specimens of the American Linden, or Basswood trees, fall one after the other before the ruthless axe of the hardy, unpoetic pioneer, does not recall to memory the passage in "LANDOR'S CONVERSATIONS: "Old trees in their living state are the only things that money cannot command. Rivers leave their beds, run into cities, and traverse mountains for it; obelisks and arches, palaces and temples, ampitheatres and pyramids, rise up like exhalations at its bidding: even the free spirit of man, the only thing great on earth, couches and cowers in its presence; it passes away and vanishes before venerable trees. What a sweet odor is there! Whence comes it? Sweeter it appears to me and stronger, than the pine itself. I imagine, said he, from the linden. Yes, certainly. O, DON PEPINO, cried I, the French, who abhor whatever is old, and whatever is great, have spared it. The Austrians, who sell their fortunes and their armies; nay, sometimes their daughters, have not sold it. Must it fall? O, who upon earth could ever cut down a linden?"

HORTICULTURAL OPERATIONS FOR MARCH.

This is the commencement of the busy season. The most important work to be done now, as soon as the severity of the weather is past, will be to make up the hot-beds, for early cucumbers, lettuce, radishes, potatoes, &c. If the manure has been prepared as recommended last month, it will be in fine condition for making up at once.

Select a spot as much sheltered from cold winds as possible, yet exposed to the sun. Let the manure be well mixed, when the bed is being made, and beaten down with the back of the fork, and, if dry, watered. The manure should not be trodden down as is sometimes recommended, for the bed is then apt to heat unevenly and one part will be too hot while another remains scarcely warm. The bed should be made one foot larger every way, than the frame that is to stand upon it. When done, place the frame upon the bed, shut it up close and cover it well at night. In a few days the heat will be up well, and if there be not much rank, smelling steam, the earth can be put in at once. Cover the bed three or four inches deep with light, rich, garden soil, then put about a bushel under the center of each sash, making a hill about nine inches high. When it is nicely warmed through, sow a few seeds of cucumber upon the top of each hill. Bury them half an inch deep, if three grow in each hill it will be enough. When the young roots are seen protruding through the hill, they must be covered with more earth, but the earth must be warmed in the bed before it is applied to the tender roots.

Some seeds of tomatoes, purple egg-plant, celery, peppers, &c., can be sown in boxes and placed in the hot-bed until they are in the way of the cucumbers, when they can be removed to some other frame to harden off before planting out in the open ground.—The heat of the bed should be about 60° by night, and from 75° to 85° by day with sun. If the warmth declines too soon, it will have to be made good with linings—that is, a bank of hot manure all around the bed and covered with boards, to keep off cold winds and rain. Water when dry, with water of the temperature of the bed. Give a little air on all favorable opportunities, but be careful that no cutting wind blows upon the plants.

Another bed can be made, managed in the same way, for a few early lettuce and radish. The soil will want to be about six inches deep. The radish (*Scarlet, Short-top, or Early Oval*) should be sown and covered about half an inch deep, and *Early Cabbage* lettuce about an eighth of an inch. The best way will be to sow them on an even surface, and cover them to that depth with fine earth.

Sow a little winter mustard and peppergrass, to use before the lettuce will be ready. When the mustard is three inches high and has but two leaves, it is fit for use. It will be ready in five or six days from time of sowing.

Forwarding Early Peas.—If room and time can be spared, sow a dozen or two of pots with early peas, these will not require any heat, but can be placed in a cold frame and covered with the glasses until they are up. Protect them from frost by covering the frame at night with litter. The best way to sow them is to put a piece of potshred over the hole of the pot, then fill the pot with earth to within one inch of the top, sow the peas thickly round the edge of the pot and cover them half an inch with earth. When the frosty nights have past, and the earth is warmed up a little, choose a warm, sunny location, manure and dig it deeply. Raise the earth up into little hills four inches high and eighteen inches apart, and plant one pot of peas in the centre of each hill. Turn it out without breaking the roots, and plant the ball entire. Stick them as soon as planted, and protect in cold nights with a little littery straw.

Hardy Garden Vegetables.—As soon as the frost is out of the ground, let manure be wheeled on to all vacant ground and deeply spaded in. Leave the ground rough from the spade to pulverize, and be in readiness for early sowing of hardy vegetables. Towards the end of the month, in some favorable places, the seeds of many hardy garden vegetables may be sown; such as *Early Kent* peas, *Round Seeded* spinach, *Shorthorn* carrot, *Extra Curled* parsley, onions, salsify, parsnep, potatoes, &c. If the season and soil be wet at time of sowing, let the seeds be lightly covered. If a light, sandy soil, and the weather dry, such seeds as carrot, onion, parsnep, &c., should be lightly covered and gently trod in, just so as to press the soil upon the seeds, for if the soil be loose, and drying winds prevail, they may never vegetate.

New beds of Asparagus and Rhubarb may be made.—For Asparagus, the ground should be trenched eighteen inches or two feet in depth, and nine inches or a foot of good manure worked in the bottom of the bed, for this is the only time you will have an opportunity of manuring the bottom of the bed. The most convenient size for asparagus beds in gardens is about five feet wide and any length. Plant four rows in a bed, one foot apart, the plants nine inches apart in the row, and buried two inches below the surface. Plants of one or two years old are best, or sow seed and thin out to the proper distance.

Rhubarb may be planted in hills four feet apart. Dig a hole two feet deep and two feet wide, and fill it full of good, rich compost, or mix plenty of manure with the soil which came out of the hole; fill in, and plant in the centre, the crown an inch below the surface. Rhubarb has large leaves and large roots, and is what is called a gross-feeder, and unless it has very rich soil to grow in will not half develop itself.

Raspberry beds may be made now, as soon as the ground is in condition. A light, loamy soil, highly manured suits them best. Plant four canes in a hill, and the hills four feet apart each way. Cut them down to within a foot of the ground, and allow them to bear no fruit the first year. Pinch out every flower as soon as seen. Drive a stake in the centre of each hill and tie the young ones loosely to the stake as they grow. *Fastolf, Hudson River Antwerp*, and *Brinkle's Orange*, are considered among the best varieties.

Strawberries.—Spread well decomposed manure between the plants, and lightly fork it in without disturbing their roots. Prepare for making new plantations, by digging the ground a foot or eighteen inches deep, incorporating plenty of manure. Plant in rows two feet apart, and one foot apart in the row. In very small gardens they may be planted at half this distance, but they will be more trouble to keep clean and will not do so well after the first year. A rather stiff loamy soil will grow the largest fruit. *Large Early Scarlet, Burr's New Pine, Hovey's Seedling*, and *Hooker*, are of the best varieties.

Cold Graperies.—The buds of the vines will show signs of bursting toward the end of the month, retard them as much as possible by keeping the vines shaded and the house ventilated on all mild occasions.

Rochester, N. Y. Josiah Salter.

LOCATION OF ORCHARDS.

All the best writers upon fruit growing, agree that the location of trees has much to do with their productiveness and the flavor and beauty of the fruit.—The experience of cultivators also confirms the opinion that much of the value of a fruit tree depends upon *where* it is planted as well as upon the cultivation it receives. The planter of trees, therefore, may well stop to consider whether he has a proper place to plant before he proceeds to buy and spend time and labor upon something which will never remunerate him.

There are now many orchards of old trees which have never been, and never will be worth the labor bestowed upon them.

The reason for the ill success of these plantations is sought for sometimes in the climate, the aspect of the ground to the sun, or the exposure to winds; and in each of these considerations there is much to instruct, and much that is worthy of consideration in choosing a location; but by far the most potent difficulty—and generally one of the most difficult to overcome—is the nature of the *sub soil*. There are many orchards now growing upon a fertile surface soil, but with a sub-soil of mingled clay and stone, so hard and impenetrable to water that wet remains about the roots for such a length of time that no good fruit is ever produced.—*A good tree must have a dry, permeable sub-soil, if it is ever to become profitable.*

After much examination and observation, we have thought that among all the drawbacks upon successful fruit culture, in this vicinity at least, no cause is so destructive of every good quality in fruit trees, as the want of a proper under drainage.

Want of good under drainage, often exists where it is not suspected by a superficial observer. It is often the case that extensive slopes, having various inclinations, all of them sufficient, if good channels existed, to carry off water rapidly, are nevertheless ruined for fruit growing, and indeed for almost all farming purposes, by the fact, that whilst the surface for a foot or more in depth, is mellow and porous, the soil beneath is hard-pan of the most impervious sort. The surface becomes saturated and remains full of cold water, until, by gradual evaporation, or by slowly soaking along from the high to the lower land, it becomes firm enough for the plow—too late, however, to be available for fruit trees. Unless some remedy is found, such land will always remain unfit for orchards.

Thus it frequently happens that the man who believes he has a fine hill for an orchard, has by no means as good a site as he imagines; hills having as often as bad sub-soils as flat lands or valleys, and if the sub-soil be bad, the fact that it is a hill, will keep the lower portions of the slope wet the longer. Hill sides are therefore often the worst of locations.

The planter of trees should make it his first study to ascertain the nature of his sub-soil; look for springy places, and go over the land frequently during the spring and autumn rains and snows, and ascertain carefully where the land is firm and dry soon after heavy rains, where it will do to plow and plant early in the season, and select such, and such land only as the place for orcharding.

It will surprise many men to find that surface soil is so often deceptive in regard to the character of the sub-soil. A man looking over his farm after a flood with this in view, will frequently find himself up to his ancles in water, upon what he supposed was a gravely, dry place; gravely it certainly is upon the top, but not so below, whilst the patch of clay which he feared would swamp him is quite firm; he did not know that gravel lay below here, and the water had fallen through very readily. Sandy surfaces are also often found saturated with water, held there by the clay sub soil beneath.

The *depth* to which the natural drainage of water exists is, in our view, a most important consideration. The roots of large trees extend to considerable depth, and will, of course, be effected by the water in the soil, if they reach it, and if water exists in super abundance at some considerable distance from the surface, it will effect the surface so as to sensibly *diminish* the temperature early in the season. A soil dry to a great depth, then, we think desirable.

We have spoken only in favor of soils *naturally* underdrained to considerable depth; we know it will be said that we have the means of making any soil dry enough for fruit where there is sufficient fall for the use of draining tiles. Without asserting that this may not be done, we must beg planters of trees for orchards not to be too sanguine before trial of the benefits of draining tile, and if they do drain, to drain deeply, and at no great distance apart.

Apple trees in orchards are expected to grow large and their roots to extend a corresponding depth into the earth, and to cover a large surface. To drain for such roots is quite a different affair from draining for grass and grain, or even for dwarf fruit trees, and small fruits.

From some experiments in the use of drain tile, to carry off the water from an unprofitable apple orchard, we are satisfied that if accomplished at all, the work of draining a springy piece of land, so thoroughly as to make it valuable for orcharding is a serious undertaking, and that, although it is not very difficult to make the soil useful for grass or ordinary crops, it is much more difficult to get good, mellow, fine flavored and fair apples to grow upon such a hard pan bottom, than it is to select a proper soil before planting the trees.

The season is now at hand when many of our farmers will be planting new orchards, and enlarging their old ones, and we throw out these hints to induce watchful care in selecting a proper basis for those operations which must, from necessity, be long in producing results, but which will be very profitable if carried out with sound judgment.

It is a well established fact that the apple orchards of Western New York are the best investments our farmers can make, and we hope to see the good work of planting extensively, go forward upon sound principles. H. E. H.

Beet Leaves were blanched by the Romans much in the same way as gardeners blanch endive at the present day, by laying a tile over it. These leaves were esteemed preferable to lettuce.

Editor's Table.

Winter Meeting of the New York State Agricultural Society.

The Annual Meeting of the New York State Agricultural Society, was held at Albany, February 11—13. The occasion brought together a more general representation of the farmers of the State than usual, and the discussions were of an interesting character, somewhat varied from the old routine, but marked by much good feeling. Being unable to attend, we make the following extracts from a full report in the *Country Gentleman*.

The Treasurer's Report having been read, showing a balance in the Treasury of $1,140.70, the Report of the Executive Committee followed, referring to the Fair and other proceedings of the year as very satisfactory, the condition of agriculture, the crops and the prospects of the farmer as cheering, and mentioning the progress thus far made in organizing and locating the "Agricultural College" at Ovid—commending both it and the Society to the support and fostering care of the farmers of the State, in the future, as they have enjoyed them in the past. These reports having been adopted,

On motion of Mr. CLARKE, of Otsego, the rules of the Assembly were taken for the government of the meeting, and at the instance of Mr. PETERS, of Genesee, members were confined to five-minute speeches, and only one on any single subject.

Mr. CLARKE, of Otsego, then brought forward the amendment to the Constitution, proposed by him last year, with reference to the permanent location of the Fairs at such points, one, two or three in number, as a majority at this meeting might determine. He merely expressed a strong desire that this question, so many years a matter of discussion, should be "no longer dodged," but set at rest by a final vote. He cared not what places were selected, but hoped that the friends of those best adapted for the purpose, would combine to support a measure which would, he believed, be so advantageous for the Society and all its interests.

Mr. BURROUGHS, of Orleans, would be equally glad to see the subject decided, and thought that the decision could but be in the negative. He opposed the project at some length, by reference to the past successes of the Society, and various other considerations of importance to its prosperity. When he concluded,

Mr. RICHARDSON, of Albany, endeavored to obtain a hearing for the amendment to the same purpose, as proposed by him,—to which it is only giving justice to add, that it had been carefully worded with a view to do away with many of the objections urged in respect to the difficulty of deciding on Permanent Locations, and to provide for every emergency that might arise in so doing.

There seemed to be too strong a disposition to take the "final vote" that had been asked, directly on Mr. CLARKE'S proposition, to pay much attention to any motion tending to complicate the question, and after further remarks and arguments in opposition, by Messrs. CHEEVER, RANDALL, NOTT, DICKINSON, ALLEN, PETERS, and others, the roll was called, showing 20 in favor and 132 against a measure requiring a two-third vote to be carried.

The Committee appointed to nominate officers, and select the next place for holding the Fair reported in favor of Buffalo, and nominated the following officers for the ensuing year.

President—Hon. ALONZO S. UPHAM, of Genesee.

Vice Presidents—JONATHAN THORNE, WILLIAM C. MCCOUN, HERMAN WENDELL, JOHN M. STEVENSON, B. E. BOWEN, FRANCIS M. ROTCH, WILLARD HODGES, LEWIS F. ALLEN.

Corresponding Secretary—B. P. JOHNSON.

Recording Secretary—ERASTUS CORNING, JR.

Treasurer—B. B. KIRKLAND.

Executive Committee—G. W. TIFFT, E. C. DIBBLE, C. S. WAINWRIGHT, SOLON D. HUNGERFORD, C. MORRELL.

Mr. JAMES LAWRENCE moved to amend the Report by substituting Syracuse for Buffalo, but after some discussion the Report of the Committee was agreed to with great unanimity.

TRIALS OF SPEED AT AGRICULTURAL FAIRS.—After some remarks on the proclivity manifested in our State and County Agricultural exhibitions to give undue and almost monopolizing precedence to horses, trials of speed and equestrian exercises, and showing the evil results to which such customs must tend, LEWIS F. ATTE, of Erie, offered a resolution deprecating the introduction of the system at the shows of the State Society, discouraging its farther extension at County Fairs, and earnestly recommending that no ring be hereafter laid out at either, of a larger diameter than 150 feet. He thought the race course on the Show ground as demoralizing as it was elsewhere, while it could but destroy the general interest in other departments of exhibitions, and weaken the public regard for societies permitting it.

Judge TERRILL, of Oswego, Mr. HILTON, of Albany, and Mr. BURROUGHS, of Orleans, were among those who opposed the resolution on the ground that speed ought to be encouraged in horses; that, if anything, justice had not yet been done them, and that it was for the interest of the State to have the breeding of the best (fastest?) horses promoted by every possible means.

Mr. OSBORN, of Albany, was in favor of the spirit of the resolution, but didn't quite like the dictatorial tone he thought it assumed towards the County Societies.

Judge CHEEVER considered the size of the ring mentioned too small, but, without assuming to determine the proper size, would vote to leave the whole subject with the Executive Committee.

Mr. PETERS, of Genesee, asserted that the value of the horse to the farmer was in reality less than that of any other domestic animal, and while he looked upon these trials of speed as only demoralizing in their influence, also considered the prominence thus given to the horse as unjust to all the other interests of Agriculture, and as anything but promotive of the objects of the Societies.

Mr. PRENTICE, of Albany, followed in some very pointed and effective remarks, concurring entirely with the intent of the resolution, and only regretting that it had not been made to cover still greater ground; he spoke of the Vermont State Fairs—to which reference had been made as proving that horse-racing and successful exhibitions were not incompatible—as merely trials of speed; mentioned a recent

failure of his own to find a good serviceable animal in that state, and argued that the character of its horses for use had been over-rated. In respect to the "Female Equestrianism," so prevalent and popular, its effect was to place our daughters on a level with professional circus riders; with them they were forced to compete, although they could not do so successfully, as a matter of course.

Mr. BURROUGHS, of Orleans, followed, expressing the belief that premiums could not be properly decided on a course of less than a quarter of a mile, and stated that even if the subject had been already brought forward by others. It was his intention to have offered a resolution, directing the Executive Committee to provide a track at the next Show of at least the length he had specified, and full forty feet in width.

Hon. A. B. DICKINSON, of Steuben, expressed some very practical views in definition of "thorough-breeding" for the farmer—what it is and should be, and justly claimed more excellence for New York horses than had been allowed them—introducing the results of his long experience and observation on this and other subjects in connection, and making some happy *hits*, which were responded to by much merriment and applause.

It was voted to leave the matter with the Executive Committee, and adjournment was had for supper.

Dr. FITCH, the Entomologist of the Society, delivered a very interesting address in the evening, followed by a desultory discussion on Dwarf Pears.

Mr. ALLEN mentioned the ravages of the mice in his orchards, gardens and pastures last winter, stating that they ate off the roots under ground, so that no preventive applied on the surface had the least effect.

DEDICATION OF THE AGRICULTURAL ROOMS.—On Thursday evening, the new and commodious rooms of the Society, in the Geological Hall, were dedicated, in connection with the usual inauguration of the new President.

B. P. JOHNSON, the Secretary, reviewed the past as related to the peculiar features of the occasion, and argued the prospects of a brilliant future from the previous success and still more important position now assumed by the Society.

Ex-President CHEEVER followed, tracing the history of Agricultural progress for the past half century, together with that of the Society, in the estimation of the people, and the attention received from the State—very justly attributing a great influence for good to the Agricultural Journals, alluding to the old *Genesee Farmer* and *Cultivator*. The State Society from the time it was awakened to life in 1841, had effected much, and taken a stand at the head of similar institutions throughout the country.

After addresses from V. H. BOGART, of Cayuga, and the Hon. T. C. PETERS, of Genesee, who took the position that the wheat crop is rapidly diminishing through the State, and that its cultivation will soon have to be given up, except so far as requisite for the domestic wants of the farmer—arguing that dairy-farming is to take its place, strengthening his views by citations from the statistics of the census, and advocating such a change from numerous considerations.

Ex-President KELLY introduced Governor KING, whose remarks were felicitous and pointed, showing the connection of the farmer to the government, and *vice versa*, and congratulating the agriculturists of the State upon the position they now hold, and assuring them of all their interests demand, at the hands of the Legislature.

The address of T. S. FAXTON, the retiring President, was read, referring to the success of the Watertown Show, adding statistics to prove the importance of the Agriculture of New York, and closing with the introduction of the President elect, the Hon. ALONZO S. UPHAM, who briefly returned thanks, and assured the members of his hearties efforts in behalf of the common cause.

GREAT SUCCESS OF THE GENESEE FARMER.—As stated in our last, we have had to reprint the January numbers of the *Farmer* three times. Our last edition of six thousand is now almost exhausted, and we are daily receiving large additions to our subscription list. We shall have to strike off another edition in a short time. *Our circulation this year far exceeds our most sanguine expectations.* This unparalleled success is mainly due to the efforts of the friends of rural improvement, who have kindly volunteered to obtain and forward us the names of subscribers. We are deeply grateful to our numerous agents for their disinterested labors, and will endeavor to reward them by making the *Farmer* still more worthy of their patronage. There is still abundance of time to canvass for subscribers, and we hope our friends will still urge all their neighbors who have not already done so, to join the club for the *Genesee Farmer and Rural Annual*. There are thousands and tens of thousands of farmers in the United States and Canada, who take no agricultural paper whatever. The *Genesee Farmer* is so cheap that all can afford to take it, and though our circulation is now very great, there is no reason why we should not count our subscribers by *hundreds* of thousands, instead of *tens* of thousands. Still, as too many farmers prefer a paper devoted mainly to silly charades and stories, we shall have to be content for the present with somewhat less than fifty thousand subscribers; but we hope that the time is not far distant, when a paper filled with the practical experience of our best farmers and gardeners, and published at a price within the reach of all, will have at least one hundred thousand regular subscribers.

PREMIUM ESSAYS.—Our offer of a dollar book for the best essay on various subjects connected with rural pursuits has elicited much useful and practical information, with which we hope to enrich the future pages of our journal. This month we give the essays to which the premiums have been awarded; and we hope the writers will inform us what book or books they will have, and we will send them, postage paid, by return of mail. Much difficulty has been experienced in deciding on the relative merits of the respective essays. Without exception, all the articles received are brief, practical, and to the point, and our only regret is that we cannot award a premium to each one of them. We trust that every one of the writers will become regular correspondents of the *Genesee Farmer*.

We would remark in this connection, that we must not be held responsible for all the views set forth in the premium essays, any more than in ordinary communications.

CORRECTION.—In the article on page 59 of last number, four lines from the bottom of second column, read "*cut* out the young wood," instead of "*set* out," &c.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—The demand for our *Rural Annual*, is far greater than our most sanguine expectations. Two editions have already been exhausted, and at this moment we have not a single copy left. We are striking off a third edition, and all orders will be filled as promptly as possible. The work gives great and universal satisfaction. It contains more matter than many dollar books; the articles are on various topics, and written expressly for it. The work contains reliable, useful, interesting and practical information, and any one of the articles are worth more than the price of the book.

In clubs of eight, the *Rural Annual* and *Genesee Farmer* are sent for fifty cents the two, and we prepay the postage on the *Rural Annual*. We did not do this last year, except to those who sent twenty-five cents for the work. This year, though the book is much larger and contains twice as much matter, we prepay the postage to club subscribers.

Every one about to build, to lay out a garden, to plant fruit or ornamental trees, should have a copy. At this season of the year especially, when gardening operations are about to commence, the information contained in the *Rural Annual* on the kitchen garden, the cultivation of the strawberry, the raspberry, the gooseberry, the currant, the blackberry, &c.; on ornamental gardening, on the management of grapes in cold houses, or planting hedges, and on various other branches of special interest at this time to all interested in the ennobling pursuits of horticulture, the *Rural Annual and Horticultural Directory* will be worth ten times its cost.

We annex a few extracts from the many complimentary notices the work has received from the press.

"Mr. JOSEPH HARRIS, editor of the *Genesee Farmer*, has issued his "Rural Annual" for 1857. It is a *capital work* of 144 pages, *full of valuable matter*, beautifully illustrated."—*Rural American.*

"A most valuable little work of 144 pages, that will be found useful to every rural inhabitant. We recommend it with confidence."—*Niagara Democat.*

"This is the second issue of a valuable manual, specially devoted to rural architecture, rural economy, &c., handsomely got up. It contains an article on rural architecture, with numerous designs of farm houses, cottages, &c.; also treatises on the management of fruit, flowers, and Kitchen Gardens, and a list of Nurserymen in the United States and Canada. Agricultural Implement makers, &c."—*Hamilton (C. W.) Spectator.*

"We have received from the publisher of the *Genesee Farmer*, a neat little work, entitled the 'Rural Annual and Horticultural Directory.' It conlains a valuable article on Rural Architecture, accompained by beautiful designs of Farm Houses, Cottages, Surburban Residences, &c., also practical treatises on the management of Fruit, Flower, and Kitchen Gardens, cultivation of Grapes, Strawberries, Raspberries, Blackberries, Gooseberries, Currants, &c., plan for laying out a fruit garden and ornamental grounds, with the best location for fruit trees, vegetables, &c., together with useful articles on the rearing and management of poultry, and various other subjects of interest to every lover of rural life. It contains, also, a very full and correct list of Nurserymen in the United States and Canada. List of Agricultural Implement makers, &c., together with a list of the fruits recommended by the American Pomological Society, as corrected at its last meeting held at Rochester, Sept. 1856. It is a work of 144 pages, illustrated with eighty engravings, and is alike attractive and useful, containing as much matter and more information than many dollar books. Price only 25 cents."—*Welland (C. W.) Reporter.*

"A valuable manual, * * * containing useful information on rural architecture, cultivation of various kinds of fruit, management of poultry, &c., the whole forming a work of 144 pages, with eighty engravings."—*Boston Cultivator.*

"Our farmers cannot do better than send 25 cents to Joseph Harris, of the *Genesee Farmer*, Rochester, N. Y., and obtain the 'Rural Annual and Horticultural Directory,' a neat little book of 144 pages, replete with just such information as every farmer needs. It is illustrated with eighty engravings, and is worth dollars instead of cents to the farmer. Twenty-five cents will insure it sent, post paid."—*Salem (N. Y.) Press.*

"A combination of useful things, with regard to buildings, fruit and shubbery, plans for gardens and ornamental grounds, garden and farm implements, &c. &c."—*Elgin (Ill.) Gazette.*

PLANTING POTATOES IN THE FALL.—Mr. E. O. BUNDY of Oxford, Chenango Co., N. Y., writes us that he plants his potatoes in the fall, and obtains larger crops, and larger, earlier and better flavored potatoes, than when planted in the spring. His method of planting is as follows: Select a piece of good *dry* ground, prepare it as for spring planting, any time in the fall when the ground is in good order, taking care to plant the potatoes a little deeper than in spring planting. Throw a shovelful of coarse manure upon, or still better into, each hill; or better still, cover the surface of the ground with a coat of straw, where mice are not too plenty. The straw helps to protect the potatoes during winter and forms a mulch in summer, and checks the growth of weeds, so much so that the potatoes scarcely need hoeing or plowing. Mr. B. says: "I have raised my potatoes in this way for several years past, and they are *invariably* free from 'the rot,' and at least two weeks earlier, and two or three sizes larger than in spring planting. The ground is frozen this winter unusually hard, and mice are unusually plentiful, and should I fail for once it will be owing to one or other of these causes. If I do not fail this year, there can be no doubt this way of raising potatoes is the best. I will write again, and inform you whether the potatoes were frozen or eaten with mice during the cold winter of 1857." We hope Mr. B. will do so; and we should be glad to hear from others who have had experience in this matter.

WINTER BARLEY.—The experiments which have been made with winter barley in this vicinity have been very generally successful. Last fall, a considerable breadth of land was sown—one farmer in Greece sowing 25 acres, and which he informs us looks well at the present time, and has aparently suffered little from the winter. In Indiana and Southern Ohio, winter barley is rapidly taking the place of spring barley. It is said to do well on land which will not produce winter wheat, though as a general rule, the soil which is best adapted for winter wheat is also best adapted for winter barley. In regard to the comparative productiveness of spring and winter barley, we have been furnished with the following experiment made by a careful farmer in Indiana. He had four acres of corn ground, from two of which he removed the corn in October, and sowed winter barley; the other two acres were sown with spring barley the following spring. The two acres sown with winter barley produced 121 bushels, and the two acres sown with spring barley only 42 bushels. We should be glad to hear from any of our readers that have had experience with this crop.

THE USEFULNESS OF THE GENESEE FARMER NOT CONFINED TO ONE SECTION OF THE COUNTRY.—T. E. TATE, Esq., of Osyka Miss., writes us as follows: "Having been a subscriber to your valuable paper, during the past year, and found so much in its pages to interest and benefit the farmer, I beg leave to send you $1 for two years' subscription. Though living at a great distance from your place of publication, and working soil and raising products of a very different character from yours, still I feel that in many leading features the same rule will apply to all.—Your articles on the subject of underdraining have awakened within me a new impulse, and I have laid eighty rods of underdrains since I became a reader of your pages. I believe these are the only underdrains in the county, and if they prove advantageous—as I am confident they will—several others will try similar experiments."

PREMIUM FOR THE BEST DOZEN DOMESTIC RECEIPTS.—We have received *twelve* "Dozen Domestic Receipts," and they are all so good that the committee to whom we referred this matter, have not been able to decide which is the best. The "proof of the pudding is in the eating," and they cannot decide without testing the receipts. When they come to a decision we will make it known and send the premium. From the fact that the committee cannot determine which is the best, it is evident to us that all of them are deserving of a premium, and *therefore award to each of the writers a 25 cent book.* They will find a considerable number of such books in our list published on the last page, and we hope that each of our fair correspondents will write us immediately which of them they would prefer, and they shall be sent, postage paid, by return of mail.

THE WEATHER AND CROPS IN INDIANA.—Our winter, from the middle of December last to the first of February, has been of a lower degree of temperature, to take the average, than last winter—yet we have had no single day or night as cold as last season; 10° below zero was the lowest point reached this winter. The fruit buds are all safe, thus far. We have at this time pleasant weather, the mercury standing at 60° to-day, and a prospect of an early spring. Our wheat crops look very bad at present, owing, I think, to the dryness of the ground last fall when wheat was sown. I think there was much of the grain that has not sprouted yet. If that should be the case, it may yet vegetate when warm rains fall. ELIJAH STARK.

Versailles, Ripley Co., Ind.

PREMIUMS FOR ESSAYS.—There are very few readers of the *Genesee Farmer*, who cannot furnish valuable practical information on some of the many subjects embraced in our premium list as published in our last number. We trust that our friends will not neglect to write on these subjects immediately, while they have leisure, and mail their letters so as to reach us by the first of April. We shall award the premium, even though there is but one essay received.

DISPOSED TO BE FACETIOUS.—In reply to our offer of a Premium for the "Best Means of Destroying Weeds," a correspondent writes: "Pull them up and shake the dirt off, and lay them on a stump to dry." Doubtless a very effective, if not an expeditious method.

TO DESTROY RATS.—An esteemed correspondent, Mr. WILLIAM RENO, of Newcastle, Pa., sends us the following amusing description of his plan of destroying rats: "I build my corn-crib on posts about eighteen inches high, made rat-proof by putting a broad board or sheet iron on the top of the posts. Make everything secure against rats except the granary, and have this rat-proof except at one of the back corners. Here, where they will like it best, make a nice hole with a spout five inches long on the outside, where they can go in and out and eat at pleasure. Then, if I think the rats are too numerous, I take a bag, after dark, and slip the mouth over the spout on the outside of the granary. Then send 'BEN' in at the door with a light, and the rats and mice will all run into the bag. Then slip the bag off the spout and slap it once or twice against the side of the granary. Turn out the dead, and in an hour or two repeat the process. After all are killed, stop up the hole till new recruits arrive, which catch in the same way. Try it, and my word for it, you will save enough to pay for the *Genesee Farmer* as long as you live.

BAY WINDOWS.—Speaking of the form of windows, HENRY WARD BEECHER well observes: "Our common, small, frequent windows in country dwellings are contemptible. We love rather the generous old English windows, large as the whole side of a room, many-angled, or circular; but of what shape, they should be recessed—glorious nooks of light, the very antitheses of those shady converts which we search out in forests, in hot summer days. These little chambers of light into which a group may gather, and be both in doors and out doors at the same time; where in storms, or in winter, we may have full access to the elements without chill, wet or exposure—these are the glory of a dwelling."

A RAT-TRAP.—A humorous correspondent at Oxford, Chenango Co., N. Y., writes us that he has invented a rat-trap which has caught a great many old, sly, crafty fellows so slick, that if they could speak and were made to tell the truth for once, they would have to confess that *they could not help being pleased with it themselves!* We must have a drawing and description of that trap, with the half admiring, half despairing expression of a sly old rat when he finds himself fairly caught at last.

BEST ESSAY ON THE MANAGEMENT OF BEES.—A correspondent calls our attention to an omission in our "Premiums for Short Essays." There is nothing said about bees. This was an oversight, and we now offer a premium of a dollar book for the best essay on the Management of Bees. All essays to be received by the first of April.

THE WINTER IN IOWA.—Our correspondent, EDWARD LINNE, of Toronto, Clinton Co., Iowa, writes, that the winter in Iowa has been very severe, and that a great number of cattle are dying from disease and starvation.—He adds, "long will the winter of 1856-7 be remembered by the farmers of Iowa."

BACK NUMBERS WANTED.—We will pay four cents each for clean numbers of the *Genesee Farmer* for June, August, September and October, 1854. Send them by mail, and we will remit the money forthwith.

To get rid of Rats.—Mr. C. M. Deton, of Sellersburgh, Ind., says the best way to disperse rats from a building where they cannot be caught, is to put in their holes very strong unslacked lime. This should be done in damp, rainy weather. The lime will stick to their wet feet, and produce an itching sensation which causes them to knaw their feet, and passing through the lime only aggravates the matter. They will soon vacate the premises, leaving behind no offensive smell, as in ordinary method of poisoning.

Building Fences.—A correspondent says that if farmers in building a fence, (a worm fence especially,) would "begin down hill and work up, they would gain enough in one year to make them life subscribers to the *Genesee Farmer*."

To Catch Owls.—Raise a pole near the hen-roost, on which the owl will alight to watch for his prey. Set a trap on the top—and you have him. William Reno.
Newcastle, Pa.

Curing Figs.—A correspondent wishes to know the best mode of curing figs. Will some of our readers inform him?

Inquiries and Answers.

Will you, or some of your correspondents, inform me in regard to the following queries:

1. How can evergreen trees, say Arbor Vitæ, Norway Spruce, &c., be safely transported from a distance — say from Rochester Nurseries to this place? It is said that even a *very short* exposure of the roots of evergreens is fatal.

2. What is the proper time to trim forest trees so that they will sprout well? I have reference to heavy trimming.

3. What is the difference between our White Cedar and American Arbor Vitæ?

4. What is the best grass seed for seeding down a lawn, sandy soil and among large evergreen trees?

5. Is coal tar the same as gas tar?

6. Will Osage Orange stand our cold winters, where the murcury went down to —40° this winter, and we get frost nearly every month in the year, except June, July and August? and what would be the next best hedge plant for this latitude? John Parry,—*Argyle, Wis.*

1. Evergreen trees can be transported safely a great distance, if they are well packed with moss among and around the roots. Our nurserymen here, send out large quantities every season, with as good results following their transplanting as that of fruit trees.

2. The best time to prune trees so as to induce them to sprout vigorously, is after they have shed their leaves in the autumn, or early in the winter; a plant continues during the winter to absorb food from the earth, which is distributed equally throughout its system, and if pruned early the sap is stored up in the remaining parts, enabling them in the spring to push with great vigor; on the contrary, when late pruning is had recourse to a large proportion of the sap that has been accumulated during the winter, will be thrown away.

3. *Cupressus thyoidies*—White Cedar. This tree grows from 70 to 80 feet high, and is rarely more than three feet in diameter, and when growing in masses, the trunk is straight, perpendicular, and destitute of branches to the height of 50 to 60 feet; it grows naturally only in low, wet ground and marshes; the wood, besides for other purposes, is used in manufacturing shingles, pails, washtubs, churns, &c.

Thuja occidentalis—American Arbor Vitæ, is a tree which attains a hight of 45 or 50 feet, with a diameter from 1 to 3 feet. "The full grown Arbor Vitæ is easily distinguished from all other trees, by its shape and foliage. The trunk tapers rapidly from a very large base to a very slender summit; and it is furnished with branches for four-fifths of its height. The principal limbs are widely distant from each other, placed at right angles with the trunk, and have a great number of drooping, secondary branches." It grows on the high banks of rivers, as well as in marshes; we have seen it flourishing on the banks of the Hudson, the Genesee, and the Niagara; it abounds in the tract of swampy land between Rome and Montezuma, in this State, and in numerous other localities in the Northern States and Canada.

4. Kentucky blue grass or red top.

5. Coal tar and gas tar are the same.

6. We have never seen or heard of the effects of a temperature of —40° on the Osage Orange plant. Winter before last, in this vicinity, the murcury went down to —26°, and this winter to —20° without injuring the shoots, except at their extremities. We are not prepared to advise any other hedge plant for your locality, but if any of our readers know of any that is suitable, we shall be happy to receive their report.

(V. L. Collier, Jr., Gallatin, Tenn.,) You can get the Earth Almond from Thorburn & Co., New York.—See advertisement in last number. We know but little of the process by which the French make "bran from wheat straw." One thing we do know, straw contains comparatively little nutritious matter, and no mere mechanical or chemical process can make it as nutritious as good wheat bran; they may render the matter it contains more digestible but they can create nothing. Scott & Hodges, of Cincinnati manufacture a good mill for grinding corn in the cob.

(J. P.) Mad Itch in Cattle. Give the animal affected, as much soot and salt as it will eat; soon after give half pound of sulphur, and eight hours afterwards, half a pound of Epsom Salts. If the animal is large, from three fourths to one pound of sulphur and salts, may be given. We should be glad to hear from our correspondents who have had experience with this fatal disease.

(E. L., Toronto, Iowa.) Allen's Diseases of Domestic Animals, Cole's Veterinary, Youatt and Martin on Cattle, Dadd's American Cattle Doctor, are all good works. For price, see advertisement on last page.

(C. N. Howe, Homer, N. Y.) You will find an article on Osage Orange Hedge, in the *Rural Annual*. See advertisement in this number, in regard to the Chinese Sugar Cane.

(D. K., Mt Healthy, Ohio.) For wheat we would sow "tafew" broadcast. We have not much faith in it. See an article "Facts about Nightsoil." in the April number of last year.

(H. I.) The Chinese Sugar Cane and the Sugar Millet, are the same thing. For seed, see advertisement in this number.

(A Subscriber, Eden, N.Y.) The experiments which have been made on the application of electricity to crops, have not sustained the expectations that were entertained on its first introduction.

ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS – Two Dollars for every hundred words, each insertion, PAID IN ADVANCE.

TO NURSERYMEN AND OTHERS.

FOR SALE AT

GENESEE VALLEY NURSERIES,

ROCHESTER, N. Y.

WE offer to the trade the following Nursery articles at extremely low prices, affording rare inducements to Nurserymen and Dealers:

10,000 Fontenay Quince stools—the best stock for dwarfing Pears—three years old, strong plants. These plants yielded 50,000 well-rooted layers this past summer. This is the only sure method of propagating Quince stocks. Price, $25 per thousand.
20,000 Plum Stocks, extra fine. Price, $18 per thousand.
10,000 Pear Stocks, two years. Price, $15 per thousand.
25,000 Western, or Wild Plum Stocks. Price $12.50 per thousand.
25,000 Quince Stocks—Angers and Fontenay—first choice. Price, $20 per thousand.
25,000 Peach Trees, one year old, very fine and choice budded varieties. These trees are perfectly free from Yellows and other diseases. Price, $70 per thousand.
5,000 Apricots, one year old, extra. Price, $10 per hundred.
10,000 Cherries, second size, two years old, three to five feet high, part with heads, best varieties. Price, $8 per hundred.
10,000 Pears, dwarf, second size, one and two years old, 2½ to 3 feet, best sorts. Price, $14 per hundred.
3,000 Pears, standards, second size, two years old, 3 to 4 feet, very best varieties. Price, $160 per thousand.
10,000 Horse Chestnuts, one year. Price, $10 per thousand.
25,000 Arborvitæ, 2½ to 3 feet, for hedges, very fine plants, and very cheap. Price, $60 per thousand.
50,000 Norway Spruce, two years old, suitable for transplanting, four to six inches. Price, $18 per thousand.
500 Deutzia gracilis. Price, $12 per hundred.
1,000 Weigelia rosea. Price, $18 per hundred.
1,000 Biguonia radicans. Price, $8 per hundred.
3,000 Dahlias, splendid collection, dry roots for propagating.—Price, $10 to $25 per hundred.
2,000 English Yews, 5 inches. Price, $8 per hundred.
1,000 Siberian Arborvitæ, 6 inches. Price, $8 per hundred.
500 Cryptomeria Japonica, 12 to 18 inches. Price, $25 per hundred.
500 Euonymus Japonica, variegated, 12 to 18 inches. Price, $8 per hundred.

For more full and complete information, the proprietors refer to the following Catalogues now ready, gratis, to those who enclose a one cent stamp for each:

No. 1. Descriptive Catalogue, Fruits.
No. 2. Descriptive Catalogue, Ornamental Trees, Shrubs, Roses, &c.
No. 3. Descriptive Catalogue, Dahlias, Verbenas, Green-house Plants, &c.
No. 4. Wholesale Catalogue or Trade List.

A. FROST & CO.,
March 1.—2t. Genesee Valley Nurseries, Rochester, N. Y.

SPRING GARDEN SEEDS, &c.

The best varieties of

PRIZE CUCUMBERS AND MELONS, for frames.
Improved New York EGG PLANT.
EARLY TOMATOES, CABBAGES AND LETTUCES.
Early Paris, Nonpareil, Lenormands, and other approved CAULIFLOWERS.
PEPPERS, CELERIES, CARDOON.
PEAS—*Early Daniel O Rourke*—Emperor, Cedo Nulli, Prince Albert, Champion of England, and the recently introduced and very superior later sorts, *Lord Raglan, Epp's Monarch, Harrison's Glory and Perfection, &c. &c.*
GREEN GLOBE ARTICHOKE—WINDSOR BEANS—BEETS—BROCOLIS—RADISHES.
CARROTS—Early forcing and other sorts.
MUSHROOM SPAWN—HERB SEEDS—SPRING TURNIPS—of all sorts.
INDIAN CORN—Extra Early Burlington, *King Phillip* and *Darling Sugar*, Early Canada and Tuscarora, Evergreen, Old Colony and Mammoth Sugar, &c. &c.
CHRISTINA MUSK and NEW ORANGE WATERMELON.
POTATOES—Early Sovereign, Early June, &c.
BEANS—Early Snap Short, Valentine, and other bush varieties.
POLE BEANS—Large and Small Lima, Horticultural, Cranberry, &c., and every other desirable variety of Vegetable Seeds—all of the very finest qualities, and growth of 1856.
FLOWER SEEDS—The largest collection to be found in the Union, comprising standard sorts and *novelties*, both of domestic and foreign growth.

NEW CHINESE SUGAR CANE, 75 cents a pound, and in packages at 25 and 50 cents each, prepaid, by mail—NEW CHINESE POTATO, *(Dioscorea batatas)*—CHUFAS, or EARTH ALMONDS—JAPAN PEAS—SPRING AND WINTER VETCHES, or TARES—OSAGE ORANGE, YELLOW LOCUST, BUCKTHORN, HONEY LOCUST, NORWAY SPRUCE, SCOTCH FIR, and other Tree and Evergreen Seeds.
FRUIT SEEDS—Pear, Peach, Plum, &c. &c.
TOBACCO SEED—Maryland, Virginia, Florida, Connecticut Seed Leaf—Imported Havana, &c. &c.
DYER'S MADDER SEED—STUBBY—WHITE LUPINS—FULLER'S TEASELS.
BIRD SEEDS—of all kinds.
AGRICULTURAL SEEDS—Field and Ruta Baga Turnips—Long Orange, White Belgium and Altringham Carrots—Mangel Wurtzel, Sugar Beet.
GRASS SEEDS—Italian and Perennial Rye, Sweet-scented Vernal, Red Top, Blue, Fescues—*French Mixed*, and other desirable mixtures for Lawns—White Honeysuckle, Lucerne, and other Clovers, &c.
FRUIT, EVERGREEN and ORNAMENTAL TREES—GIANT ASPARAGUS ROOTS, RHUBARB, &c.
GARDEN SYRINGES, BUDDING and PRUNING IMPLEMENTS, and a general assortment of HORTICULTURAL TOOLS.
Catalogues on application. If by mail, enclose a three cent stamp for return postage.
The smallest orders by mail promptly responded to.

J. M. THORBURN & CO.,
15 John Street, New York.

JUST RECEIVED from Holland, in the finest condition, large and sound, an assortment of Bulbs for spring planting, viz:
AMARYLLIS, *(Jacobean Lilies,)* FORMOSISSIMA, and LUTEA.
GLADIOLUS *Psittacinus, Floribundus, Gandavensis* and *Ramosus*, named and mixed sorts.
TIGER FLOWERS, *(Tigridia,)* Red and Yellow.
TUBEROSES, MADEIRA VINES, &c &c. March 1.—1t.

THE BEST BOOK FOR AGENTS.

TO PERSONS OUT OF EMPLOYMENT.

An elegant Gift for a Father to Present to his Family!

☞ Send for One Copy, and try it among your Friends! ☜

WANTED, Agents in every section of the United States and Canada, to circulate SEARS' LARGE TYPE QUARTO BIBLE, for Family Use—entitled

THE PEOPLE'S PICTORIAL DOMESTIC BIBLE,

With about One Thousand Engravings!!

This useful book is destined, if we can form an opinion from the Notices of the Press, to have an unprecedented circulation in every section of our wide-spread continent, and to form a distinct era in the sale of our works. It will, no doubt, in a few years become THE FAMILY BIBLE OF THE AMERICAN PEOPLE.

☞ The most liberal remuneration will be allowed to all persons who may be pleased to procure subscribers to the above. From 50 to 100 copies may easily be circulated and sold in each of the principal cities and towns of the Union. IT WILL BE SOLD BY SUBSCRIPTION ONLY.

☞ Applications should be made at once, as the field will soon be occupied.

☞ Persons wishing to act as agents, and do a safe business, can send for a specimen copy. ☜ On receipt of the established price, Six Dollars, the PICTORIAL FAMILY BIBLE, with a well bound Subscription Book, will be carefully boxed, and forwarded per express, at our risk and expense, to any central town or village in the United States, excepting those of California, Oregon and TEXAS.

☞ Register your letters, and your money will come safe.

☞ In addition to the Pictorial Bible, we publish a large number of Illustrated Family Works, very popular, and of such a high moral and unexceptionable character, that while good men may safely engage in their circulation, they will confer a PUBLIC BENEFIT, and receive a FAIR COMPENSATION for their labor.

☞ Orders respectfully solicited. For further particulars, address the subscriber, (post-paid.) ROBERT SEARS,
March 1.—1t. 181 William street, New York.

CHINESE SUGAR CANE SEED.

NEW, pure, and well ripened, by mail, in packets at 50 cents and $1 each. All the best Vegetable and Flower seeds, by mail, sixteen packets for $1. Also, all the finest Roses, Bulbs, &c.

Address W. T. GOLDSMITH,
March 1.—2t. Rochester, N. Y.

PLEASE TO READ THIS.

EMPLOYMENT FOR THE WINTER. Persons out of employment may find that which is both profitable and pleasant by addressing ROBERT SEARS, Publisher,
Jan. 1—4t. No. 181 William street, New York.

TO FARMERS AND GARDENERS,

THE Subscribers offer for sale 40,000 barrels of their New and Improved POUDRETTE, manufactured from the night-s li of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for eighteen years and still defies competition as a manure for Corn and Garden Vegetables, being *Cheaper, more powerful than any other*, and at the same time *free from disagreeable odor*. Two barrels ($3 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer, and is also a preventive of the cut worm; also, it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital ($100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense—

One barrel,	$2 00
Two "	3.50
Five "	8.00
Six "	9.50

And at the rate of $1.50 per bbl. for any quantity over 6 bbls.

☞ A Pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is—

THE LODI MANUFACTURING CO.,
feb 1—4t Office, 60 Cortlandt St., New York.

INGERSOLL'S
PREMIUM PORTABLE HAY PRESS.

THIS Press combines greater power and portability, and requires less labor, occupies less space, and costs less money than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing Cotton, Hemp, Hops, Broom Corn, Bags, Husks, &c. samples may be seen at our Warehouse, and circulars with cuts and full descriptions will be furnished upon application by letter or otherwise, to

FAIRBANKS & CO.
Sole Manufacturers,
No. 189 Broadway,
Jan. 1—3t. New York.

CHINESE SUGAR CANE SEED.

THE Subscribers have made arrangements for, and have now on hand a moderate supply of the seed of the above plant, well ripened, and may be relied on as GENUINE.

Sufficient to plant about one-fifth of an acre in drills 4 feet by 18 inches, put up in strong linen packages, sent by mail, post paid, on the receipt of One Dollar, or a proportionate quantity by express, at purchaser's expense.

Order early to secure the seed.

Also, a full assortment New and Fresh GARDEN SEEDS, imported and American growth.

Field Seeds and Grain of the most desirable kinds.

Flower Seeds, the finest variety.

Full Catalogues, gratis on application.

HENRY D. EMERY & Co.,
feb 1—2t No. 204 Lake St., Chicago, Ill.

SUGAR CANE SEED.

EMERY BROTHERS have, at much expense and trouble, obtained a supply of Genuine Seed of the Chinese SUGAR CANE, or "*Sorghum Saccharatum*," successfully grown, fully matured, and sure to vegetate, from Mr. E. PETERS, of Georgia, which they will supply in strong linen packages, with full directions for its culture, for ONE DOLLAR, each containing sufficient quantity for one-fifth of an acre. All orders should be accompanied with TWELVE CENTS, OR Stamps if to be sent by mail. Pamphlets containing a compilation of reliable information, experiments and success of the plant since its introduction in this country, furnished gratis (post-paid) upon receipt of a three cent postage stamp.

EMERY BROTHERS,
Proprietors Alb. Agricultural Works, 52 State St. Albany.
feb 1—2t

FOR SCHOOL EXHIBITIONS.

THE EXHIBITION SPEAKER AND GYMNASTIC BOOK, illustrated with Seventy Engravings; contains Plays, Farces, Tableaux, Tragedies, Dialogues, Comic and Humorous Pieces, Senatorial Speeches, &c., &c. The action is all described and written out so that Teachers and Scholars have no difficulty in performing them well on the rostrum. The Gymnastics and Calisthenics are of great importance to Teachers and Pupils in Schools and Academies. Remit Eighty-seven cents in stamps, and you will get the book by mail, free of postage. Address

feb 1—2t D. M. DEWEY, Rochester, N. Y.

GENESEE FARMER PREMIUMS FOR 1857.

1. To every person who sends EIGHT Subscribers, (*at our lowest terms of thirty-seven and a half cents each,*) we will send, postage paid, a copy of our beautiful twenty-five cent book the *Rural Annual* for 1857.

2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of *thirty-seven and a half cents each,*) one extra copy of the *Genesee Farmer*, and one copy of the *Rural Annual*.

3. To every person sending us TWENTY-FOUR subscribers, as above, two copies of the *Rural Annual*, and one extra copy of the *Farmer*, or any agricultural work valued at 50 cents, postage paid.

4. To any person ordering THIRTY-TWO copies of the *Farmer*, as above, three copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural book valued at 75 cents, postage paid.

5. For FORTY, four copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural book valued at $1, postage paid, or four extra copies of the *Farmer*.

6. For FORTY-EIGHT, five copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural book valued at $1,25, postage paid, or five extra copies of the *Farmer*.

For larger numbers, books or papers given in the same proportion.

☞ To save expense to our friends, we pay the postage on all these works, and persons entitled will state what they wish sent, and make their selections when they send orders; or if their list is not complete, if wished, we will delay sending until the club is full.

Premiums for the Greatest Number of Subscribers.

In order to excite a little competition among our friends everywhere, as well as to reward them for their voluntary labors in behalf of our journal, we make the following liberal offers. Those who do not get the premiums offered below are sure of the above, so that we have no blanks.

1 FIFTY DOLLARS, in Agricultural Books (at the lowest prices,) to the person who shall send us the largest number of subscribers at the club prices, before the 15th day of April next, so that we may announce the successful competitors in the May number.

2. THIRTY DOLLARS, in Agricultural Books, to the person who shall send us the second highest list, as above.

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